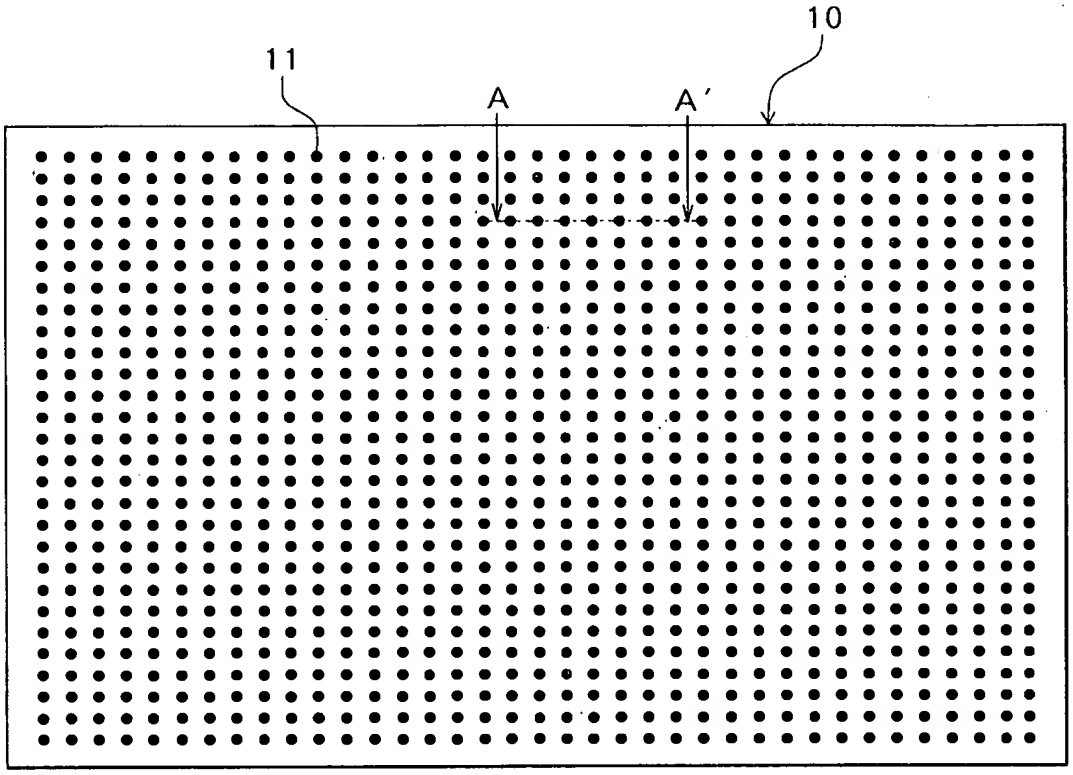



FIG. 1

0094628.0094628

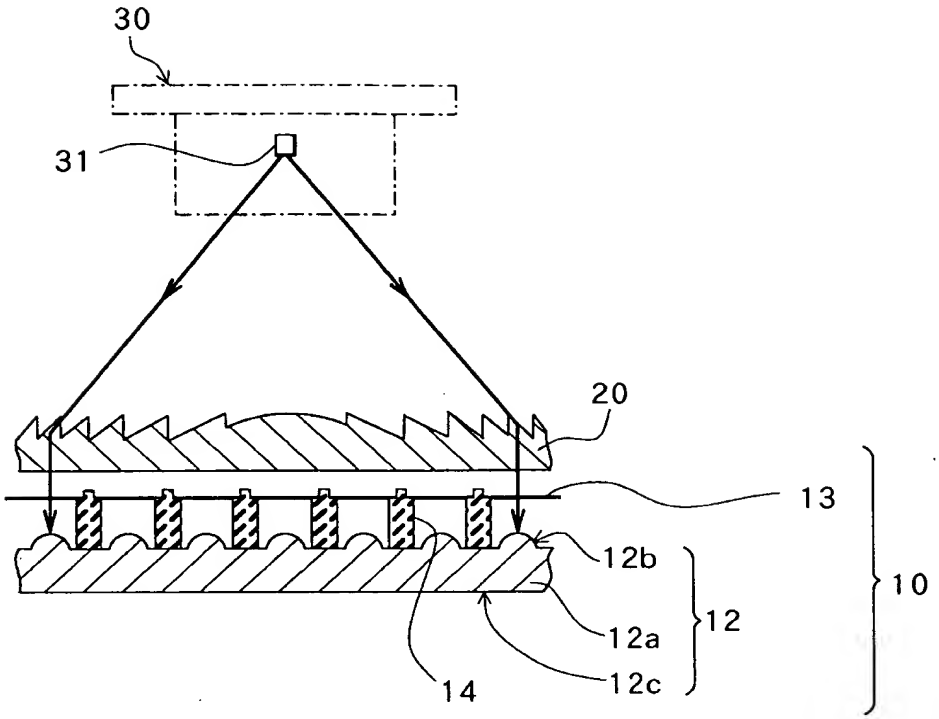



FIG. 2

0646228 "09/14/00

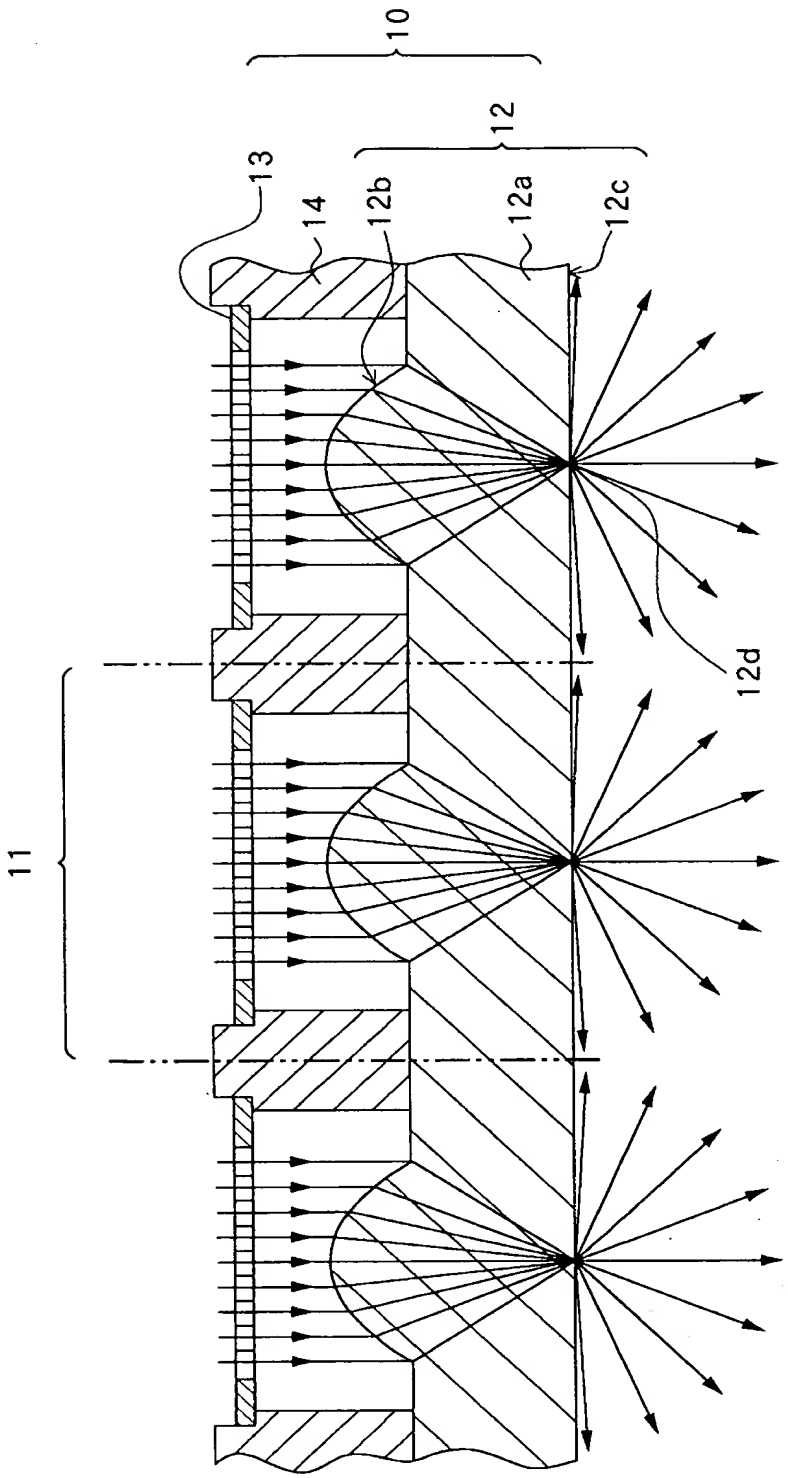



FIG. 3

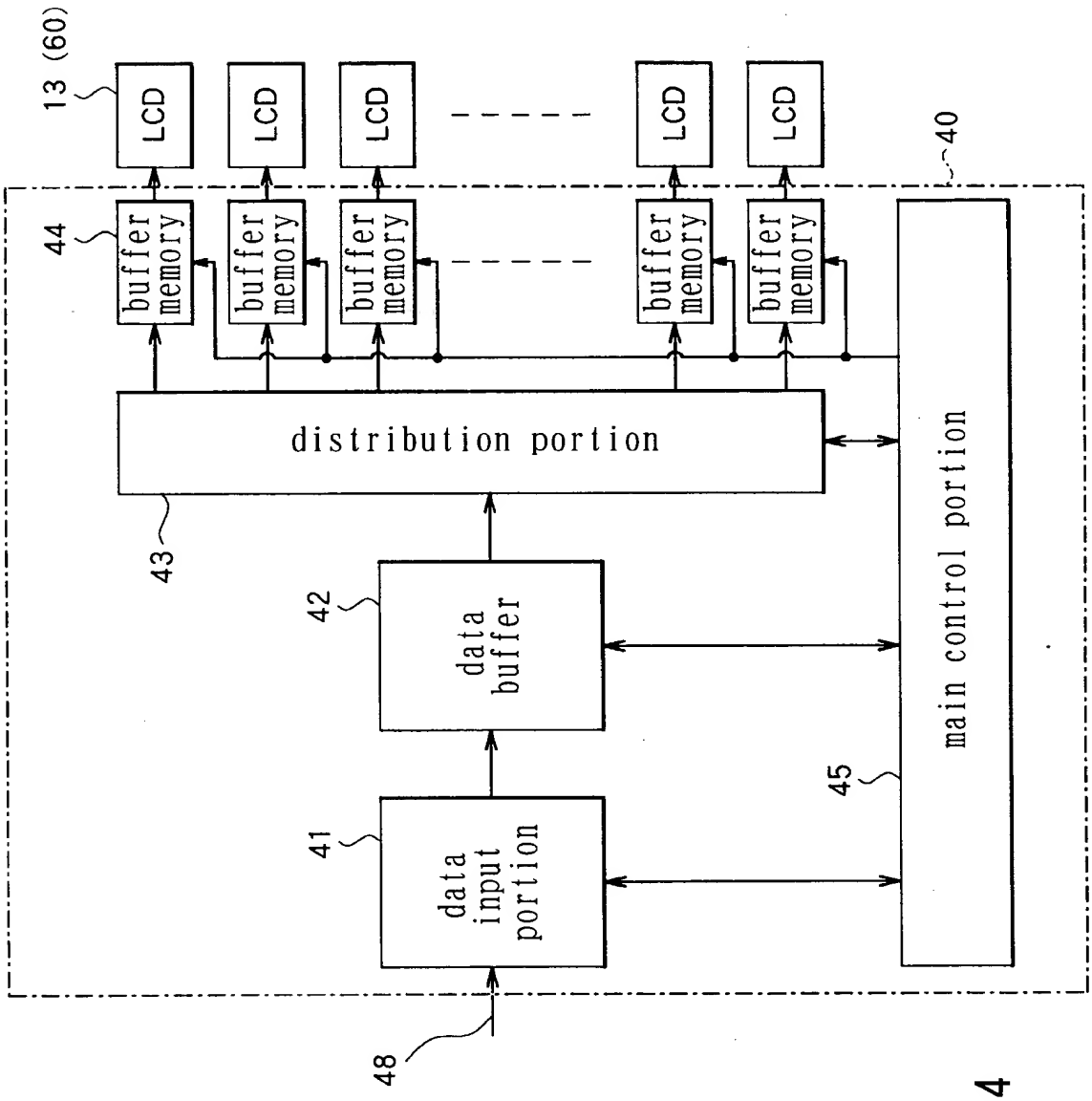

13 (60)
LCD
LCD
LCD
LCD
LCD
40
44
buffer memory
buffer memory
buffer memory
buffer memory
buffer memory
distribution portion
43
42
data buffer
main control portion
45
41
data input portion
48

FIG. 4

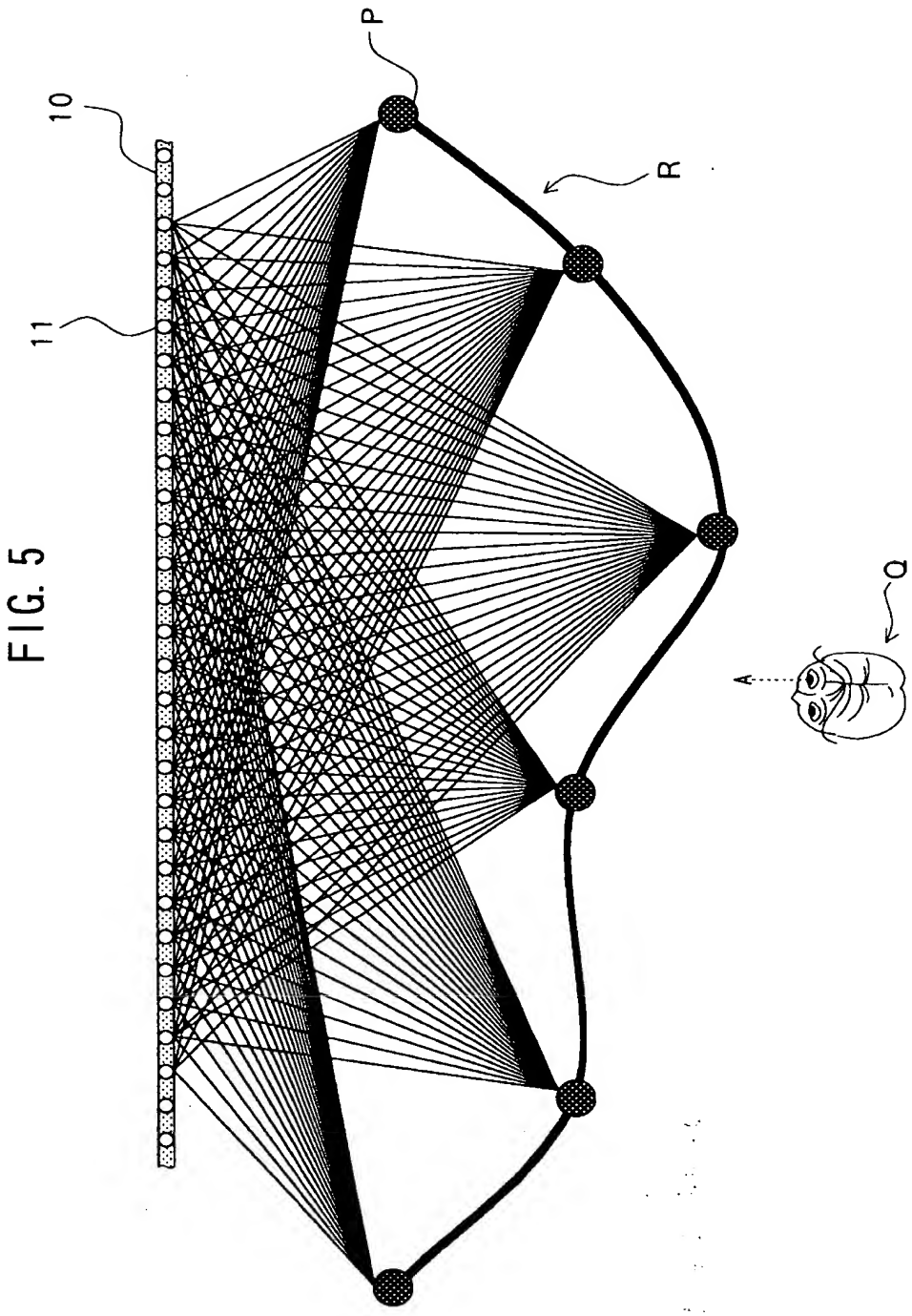



FIG. 5

09646228 - 091400

00h160'8229h960

FIG. 6A

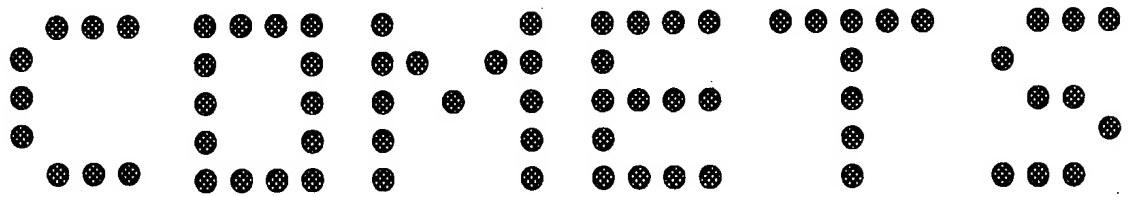


FIG. 6B

| | X1 | X2 | X3 | X4 | X5 | X6 | X7 | X8 | X9 | X10 | X11 | X12 | X13 | X14 | X15 | X16 | X17 | X18 | X19 | X20 | X21 | X22 | X23 | X24 | X25 | X26 | X27 | X28 | X29 | X30 | X31 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Y1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| Y2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Y3 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| Y4 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Y5 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |



09/946228

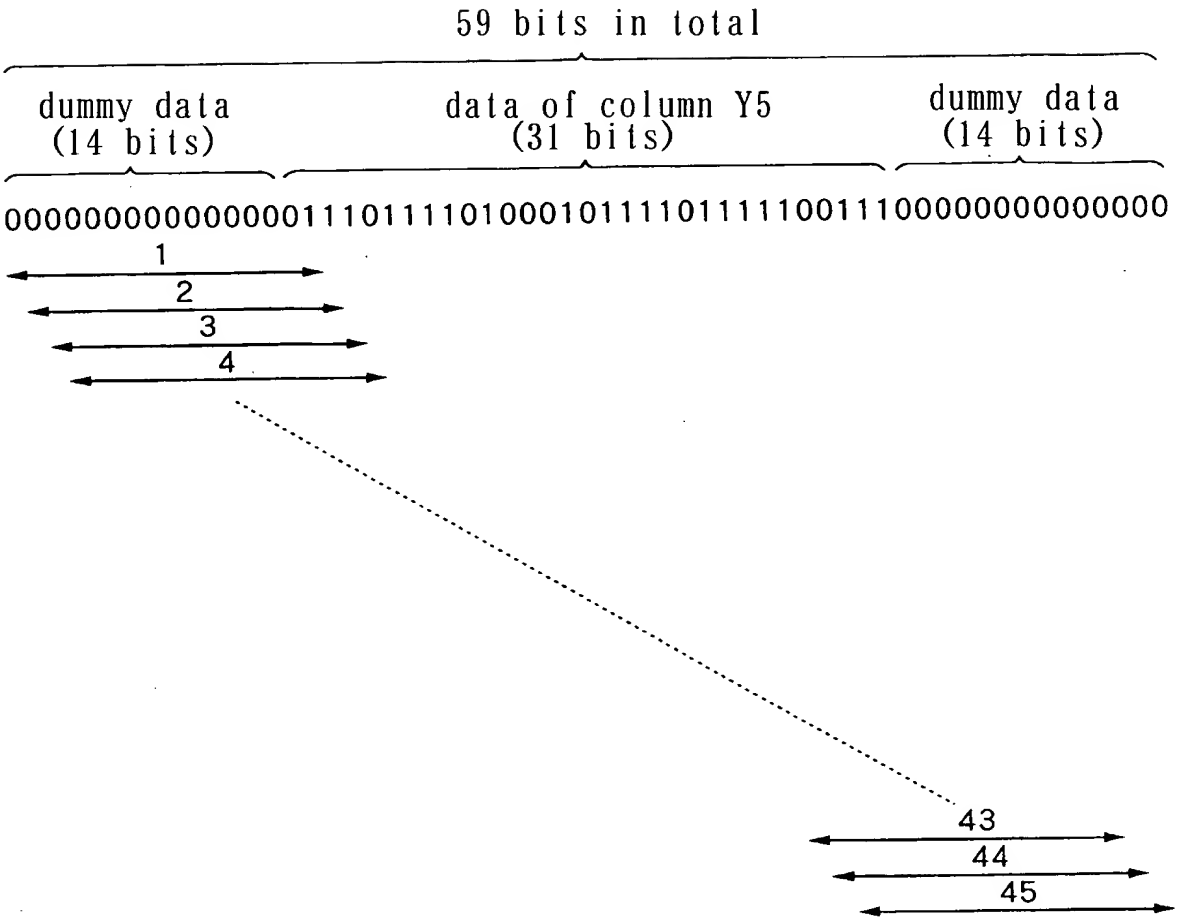



FIG. 7

09546228.090400

| slice number | sliced data |
|---|---|
| 1 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| 2 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 |
| 3 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 |
| ⋮ | ⋮ |
| 15 | 0 1 1 1 0 1 1 1 1 0 1 0 0 0 1 |
| 16 | 1 1 1 0 1 1 1 1 0 1 0 0 0 1 0 |
| 17 | 1 1 0 1 1 1 1 0 1 0 0 0 1 0 1 |
| 18 | 1 0 1 1 1 1 0 1 0 0 0 1 0 1 1 |
| 19 | 0 1 1 1 1 0 1 0 0 0 1 0 1 1 1 |
| ⋮ | ⋮ |
| 42 | 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 |
| 43 | 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 |
| 44 | 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| 45 | 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |

FIG. 8

0046228 - 0046228

| screen dot number | inverted data |
|---|---|
| D1 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| D2 | 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| D3 | 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| ⋮ | ⋮ |
| D15 | 1 0 0 0 1 0 1 1 1 1 0 1 1 1 0 |
| D16 | 0 1 0 0 0 1 0 1 1 1 1 0 1 1 1 |
| D17 | 1 0 1 0 0 0 1 0 1 1 1 1 0 1 1 |
| D18 | 1 1 0 1 0 0 0 1 0 1 1 1 1 0 1 |
| D19 | 1 1 1 0 1 0 0 0 1 0 1 1 1 1 0 |
| ⋮ | ⋮ |
| D42 | 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0 |
| D43 | 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 |
| D44 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 |
| D45 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 |

FIG. 9

09646228 - 050702

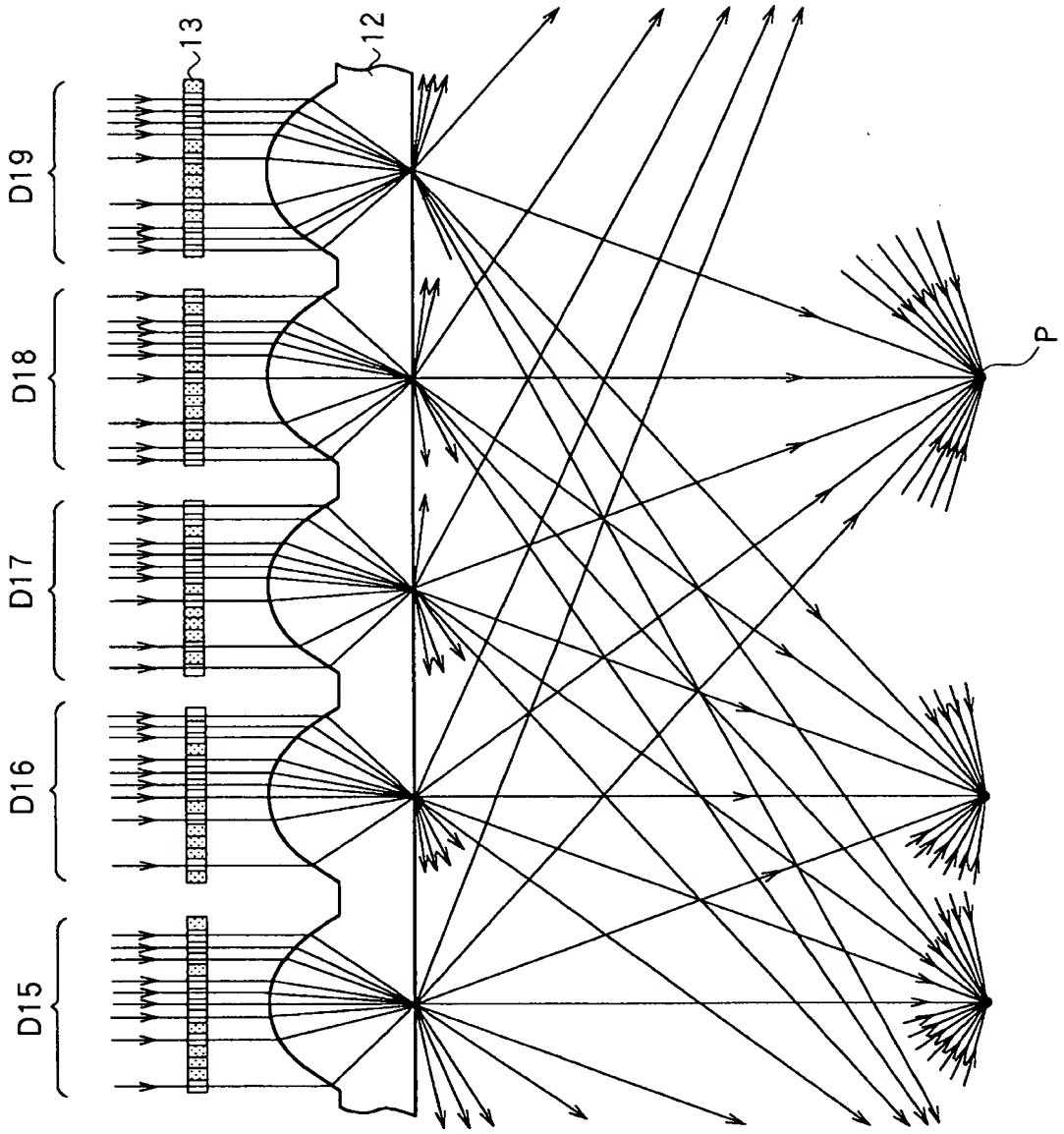



FIG. 10

09046228 "82545 0d0

FIG. 11A

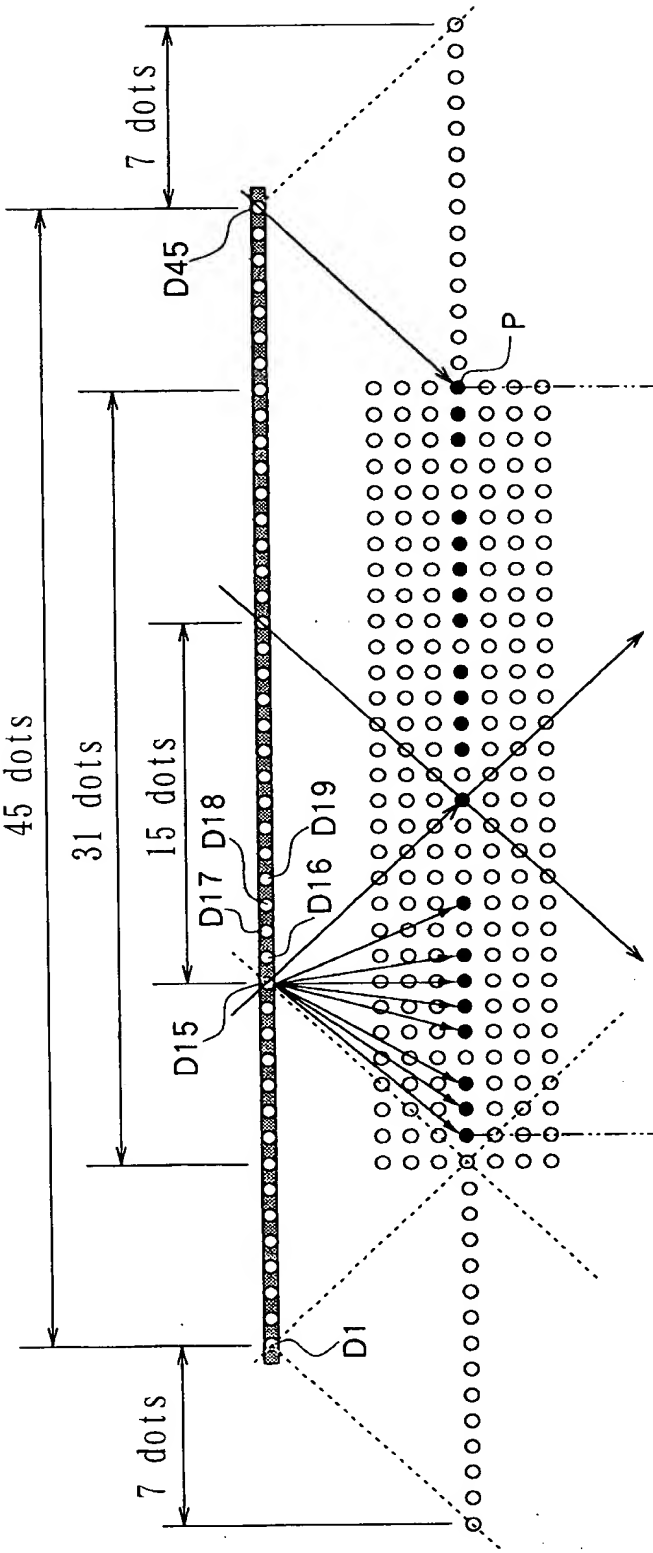
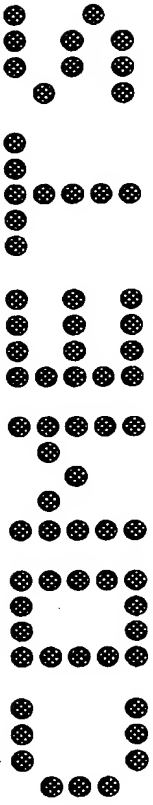



FIG. 11B



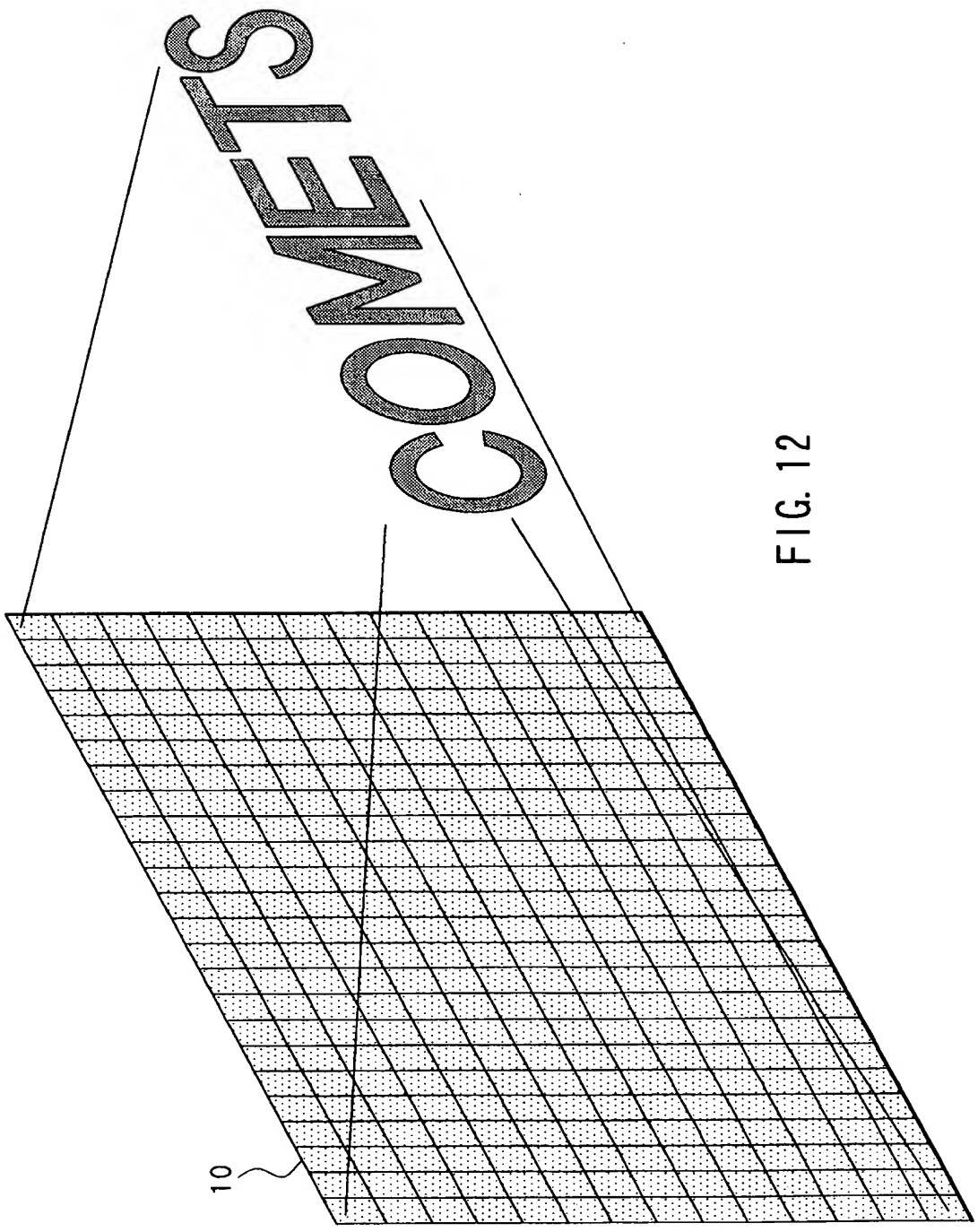



FIG. 12

09646228 "09/646228"

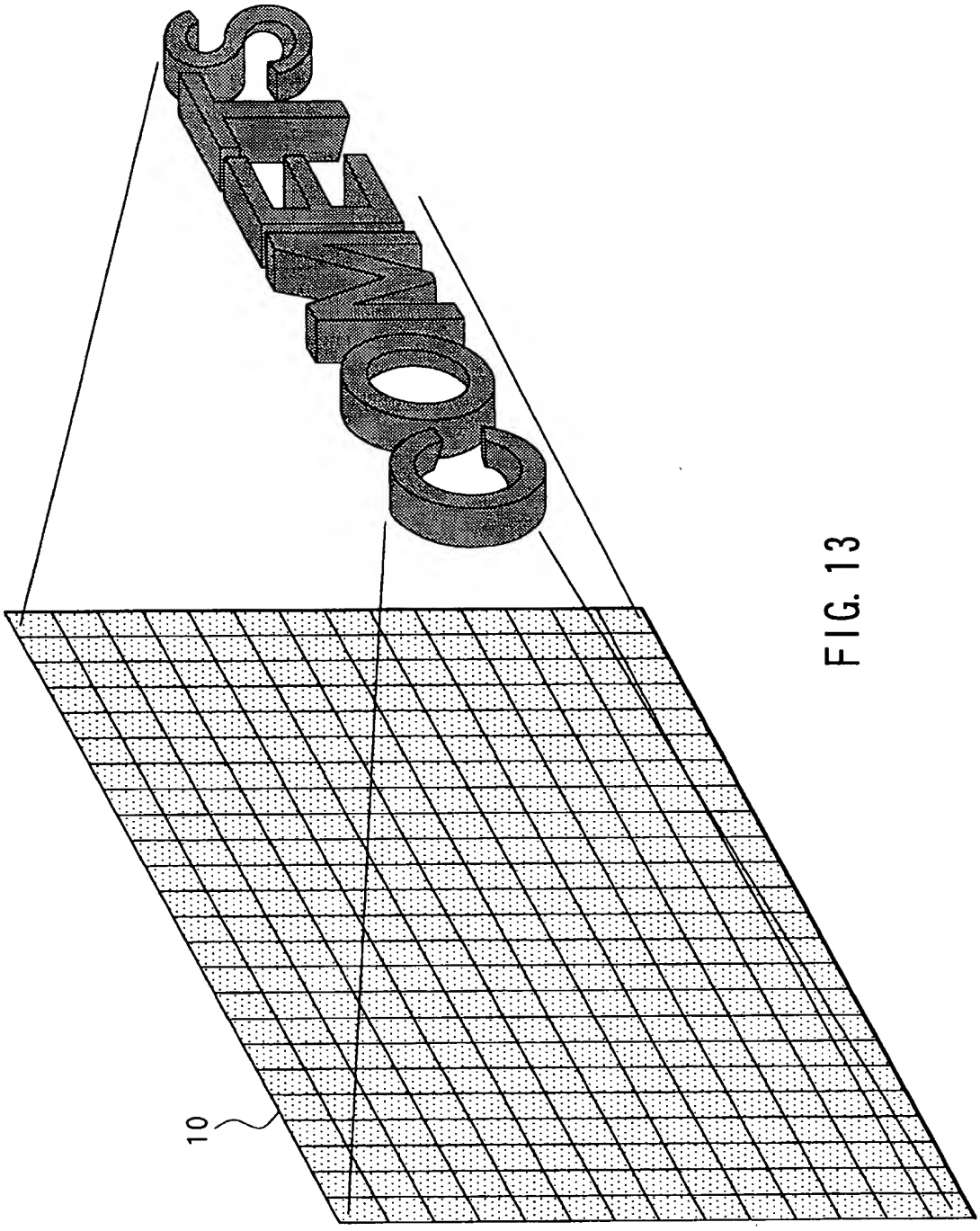



FIG. 13

0094602 "20/20/20"

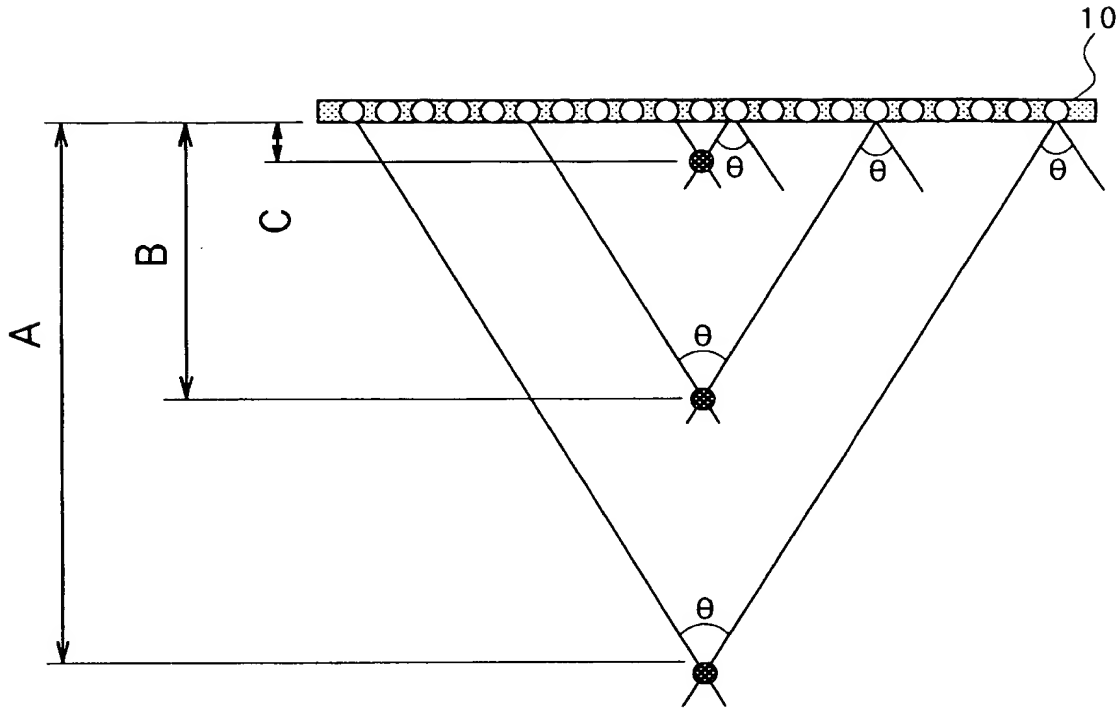



FIG. 14

09646228 - 091400

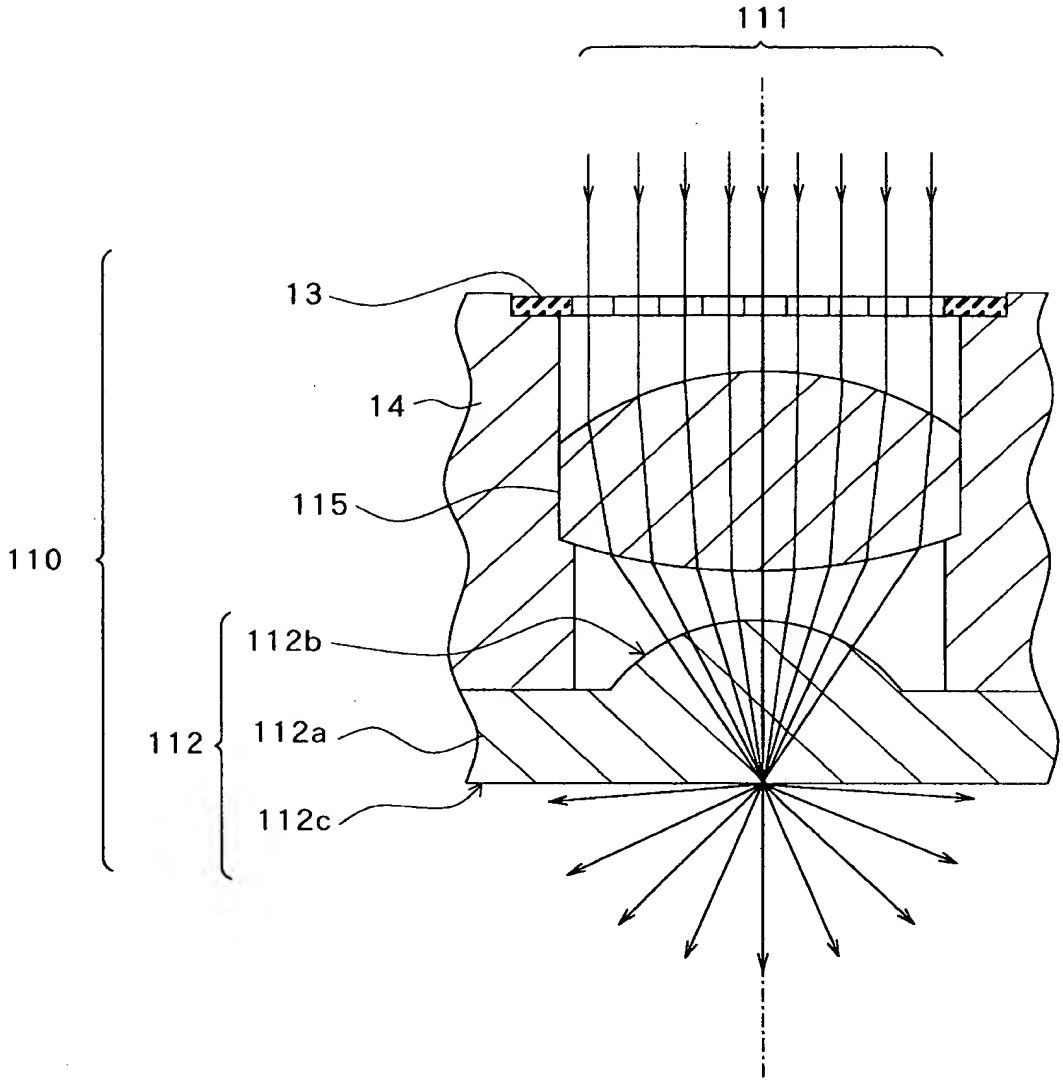



FIG. 15

0045250-0045400

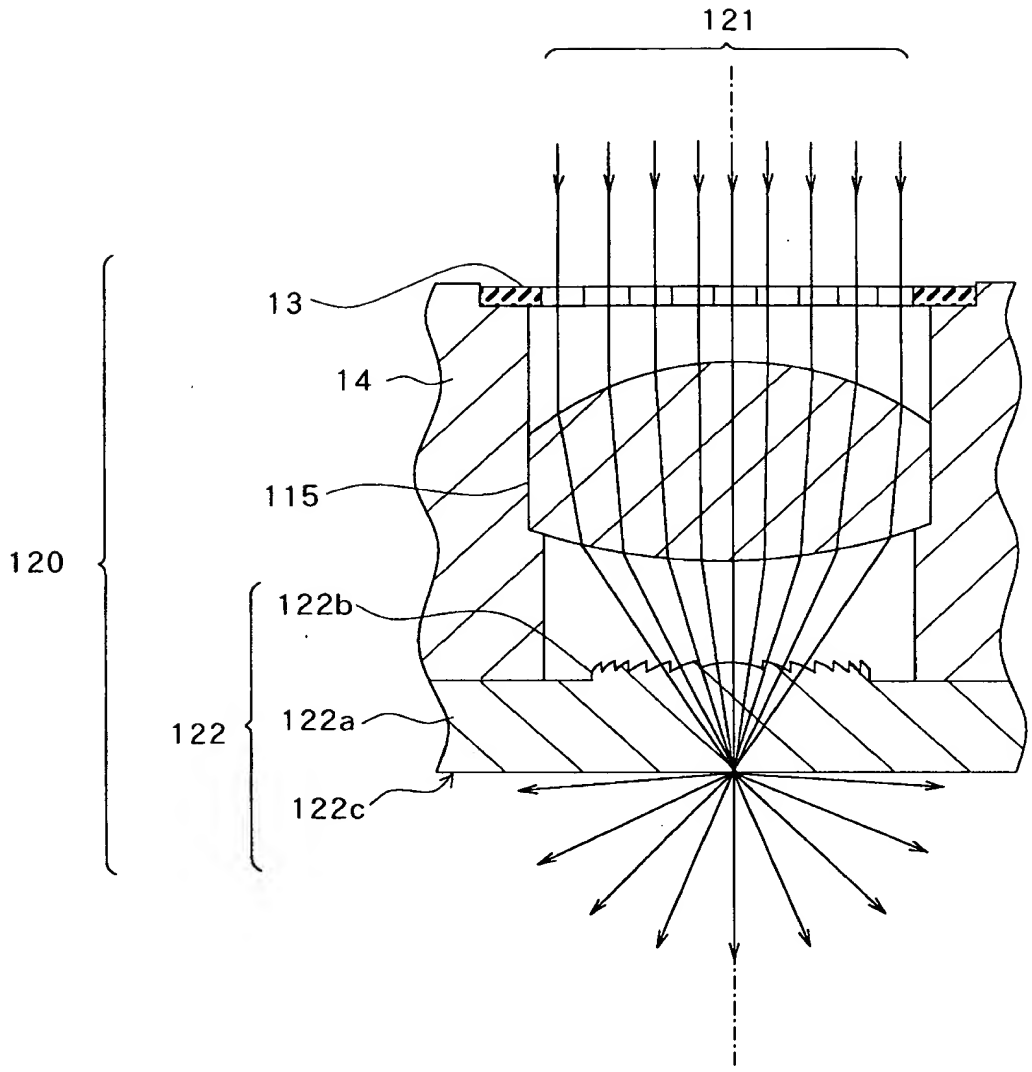



FIG. 16

0064628 - 0064628

09646228.050700

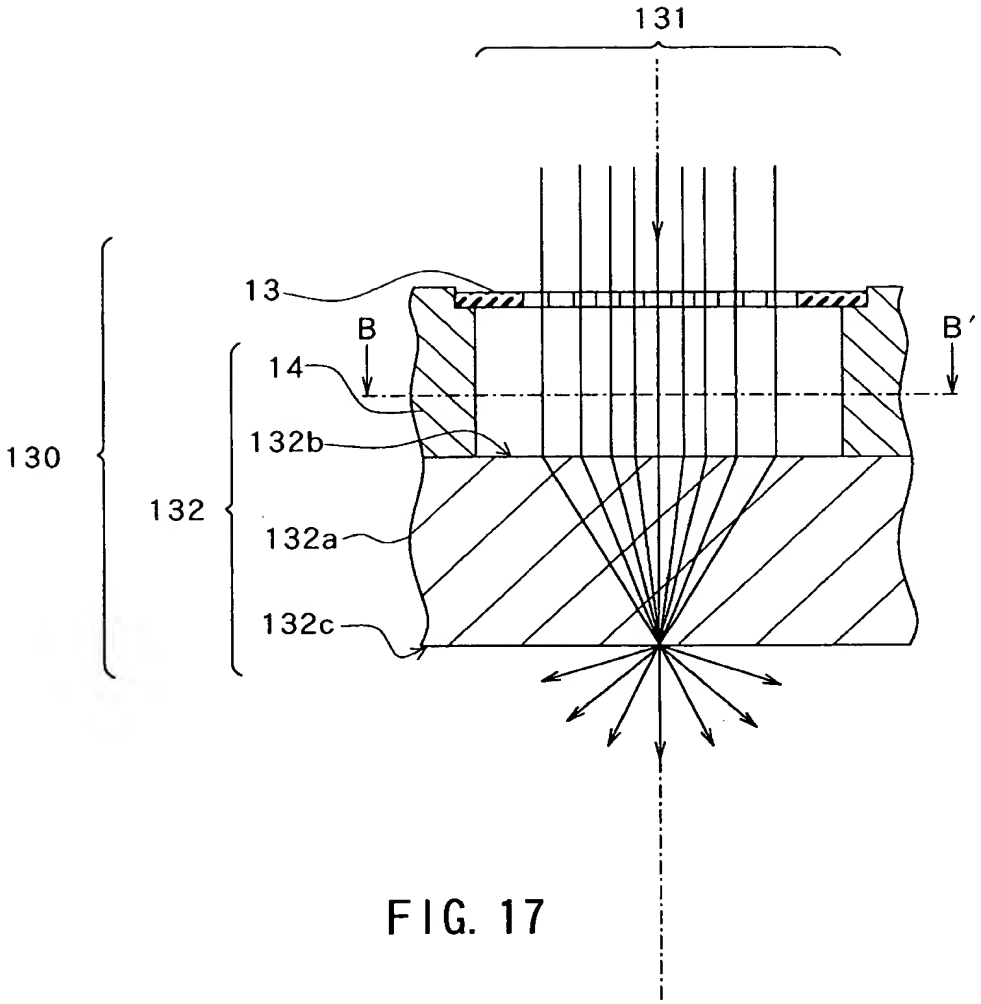



FIG. 17

section along B-B′

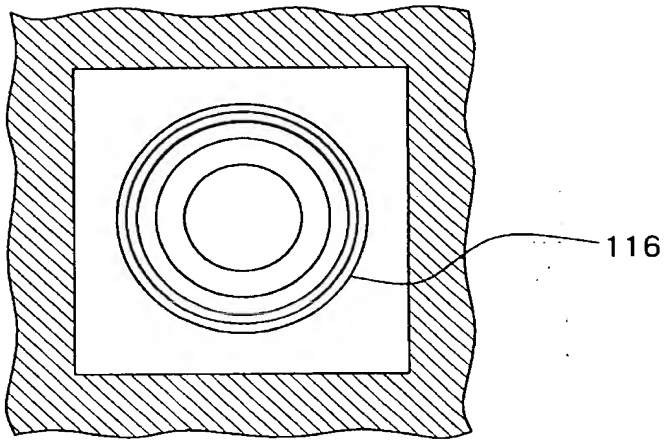



FIG. 18

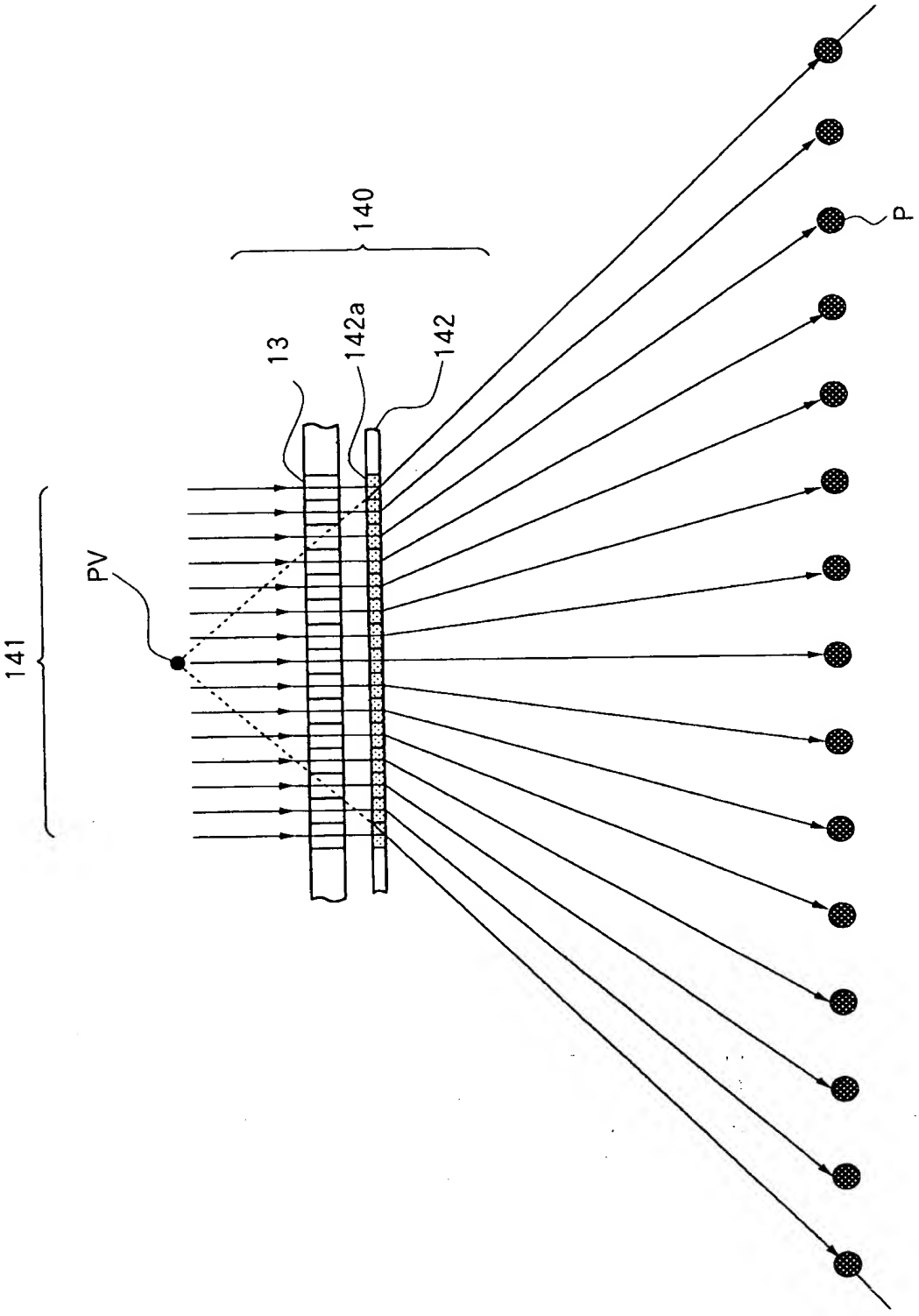



FIG. 19

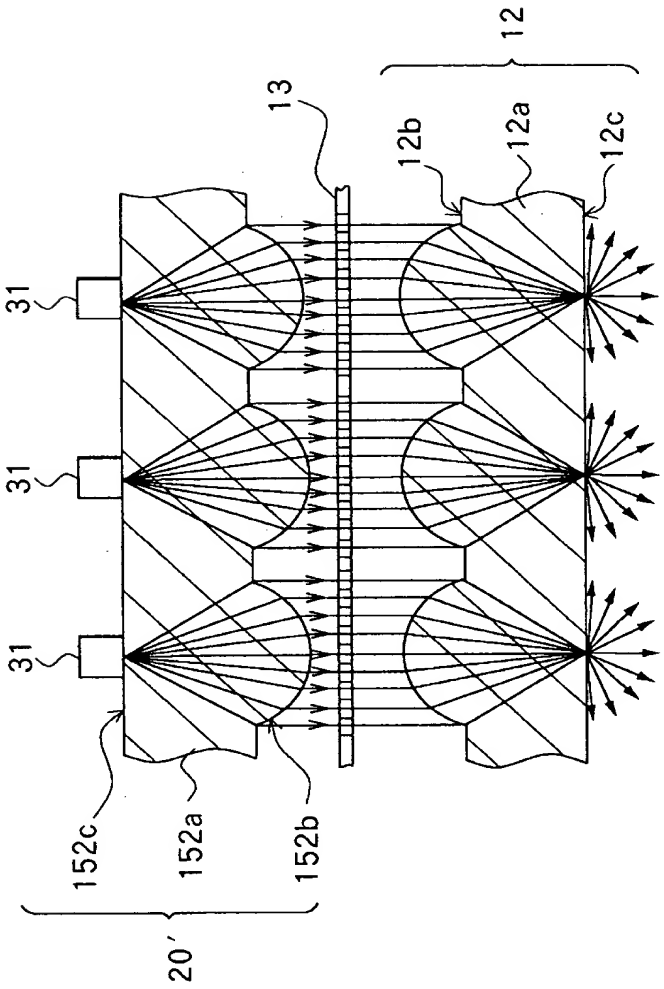



FIG. 20

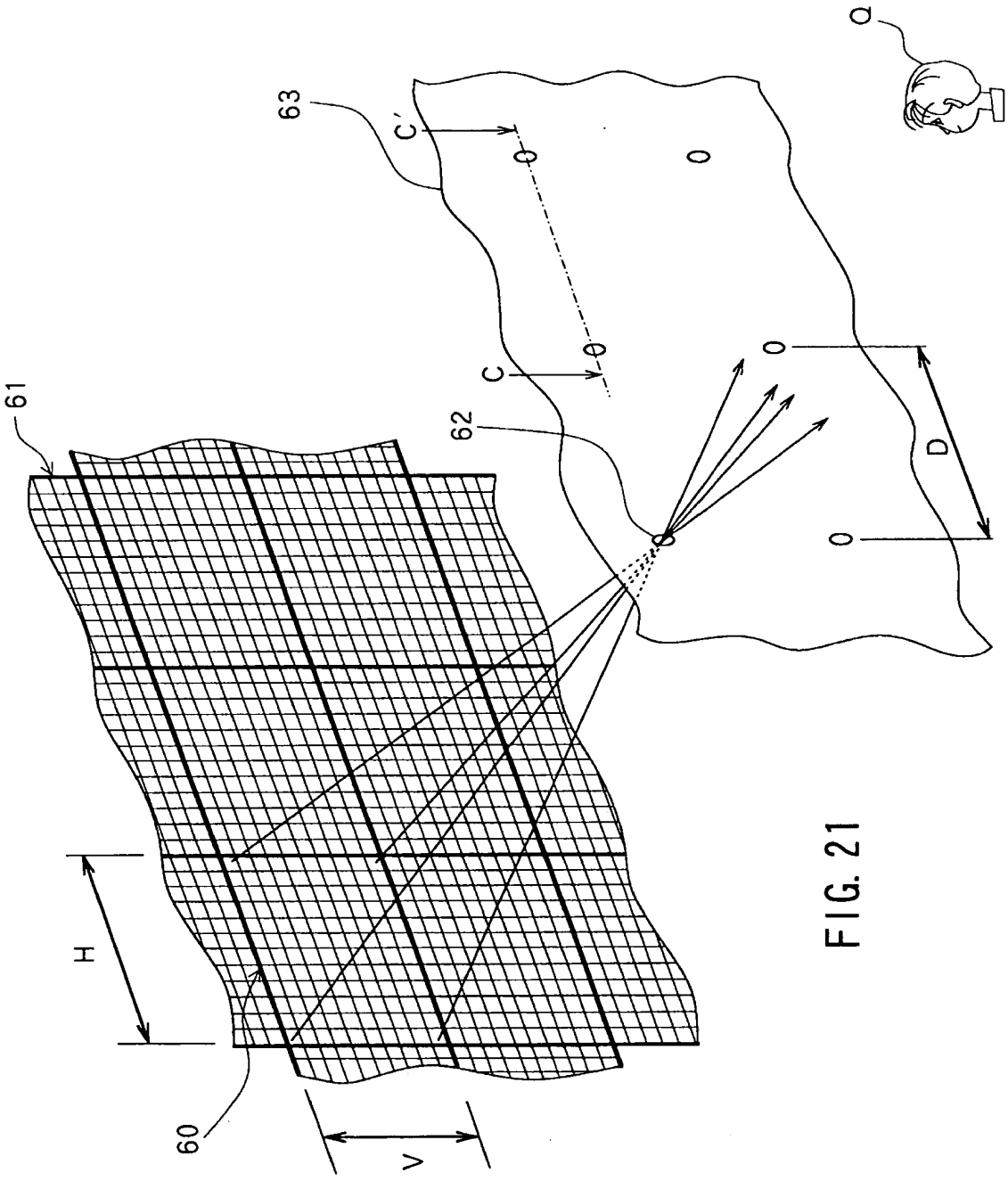



FIG. 21

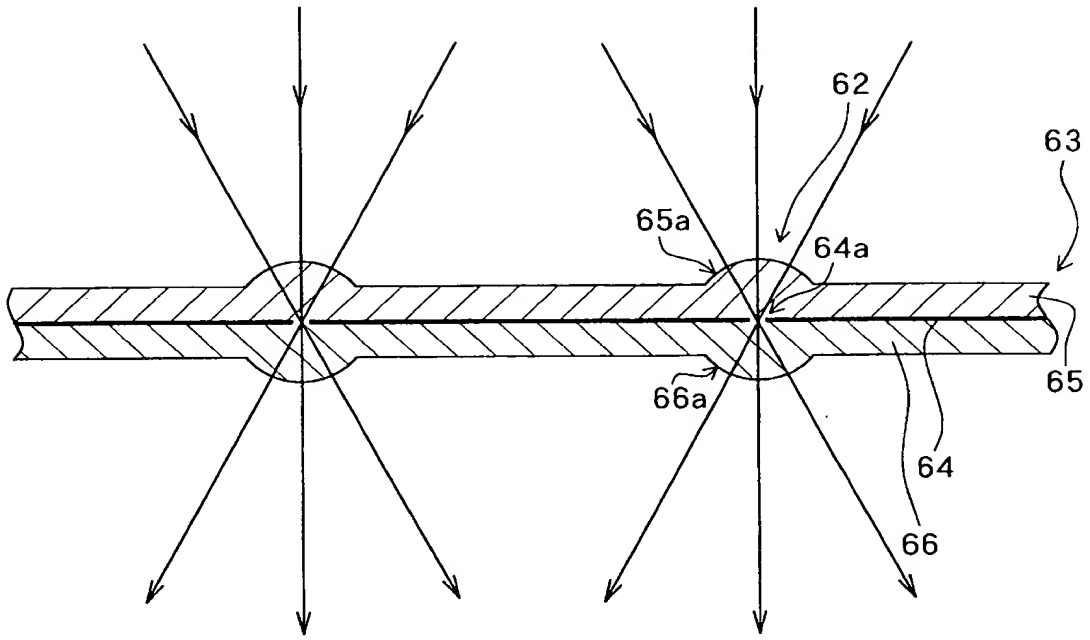



FIG. 22

0646228.pdf

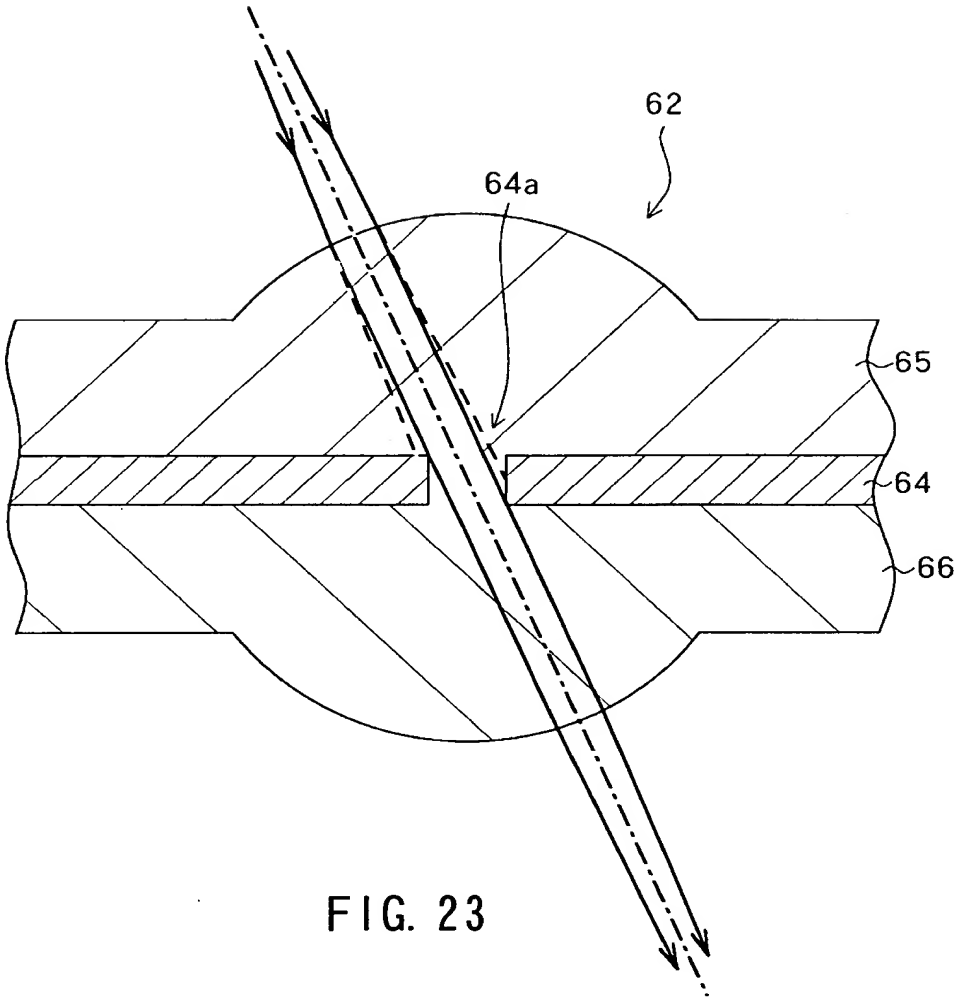
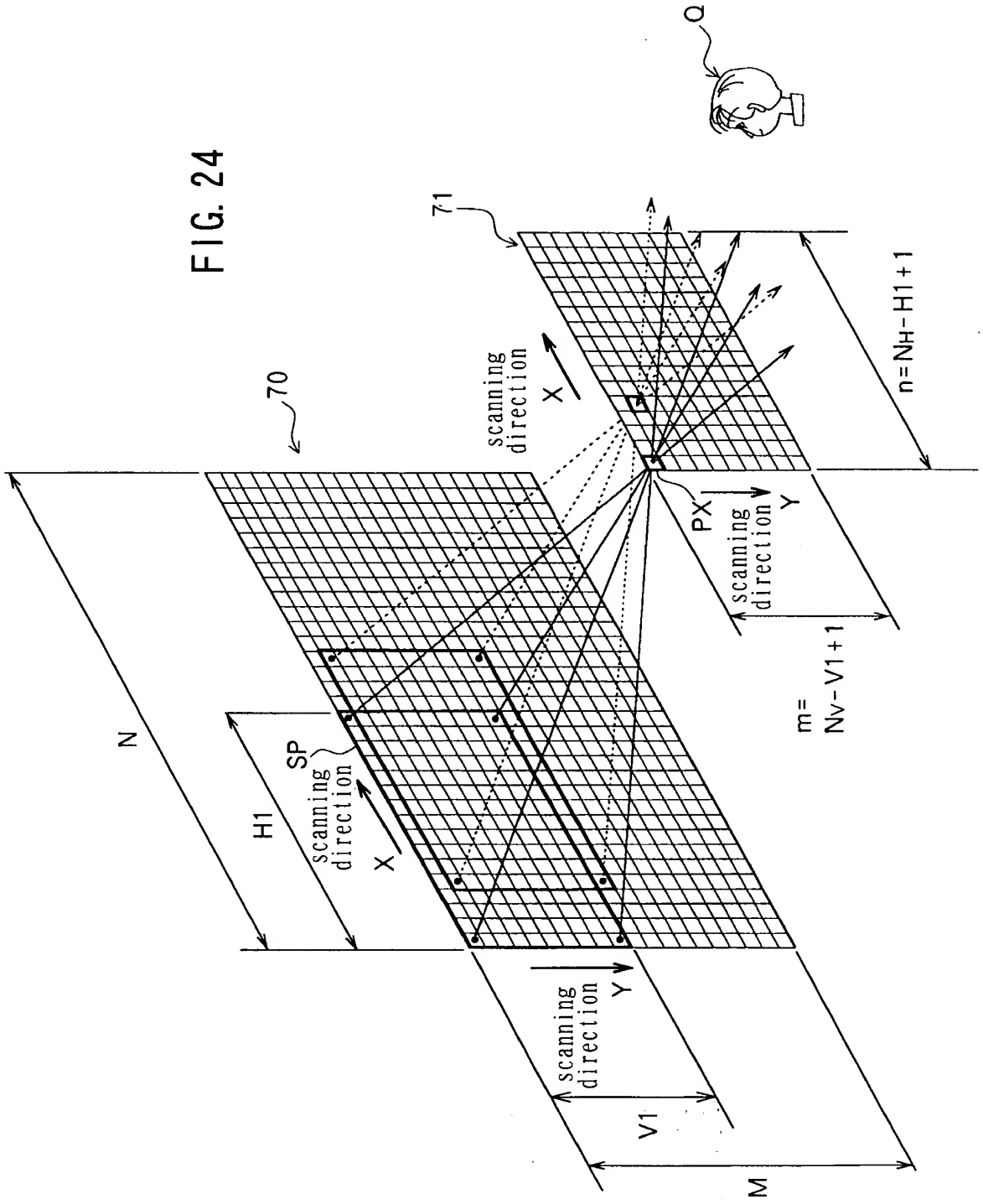



FIG. 23

0094628 0094628 0094628

FIG. 24


Q
71
70
scanning direction
X
n=NH-H1+1
PX
scanning direction
Y
m=
Nv-V1+1
N
H1
SP
scanning direction
X
scanning direction
Y
V1
M

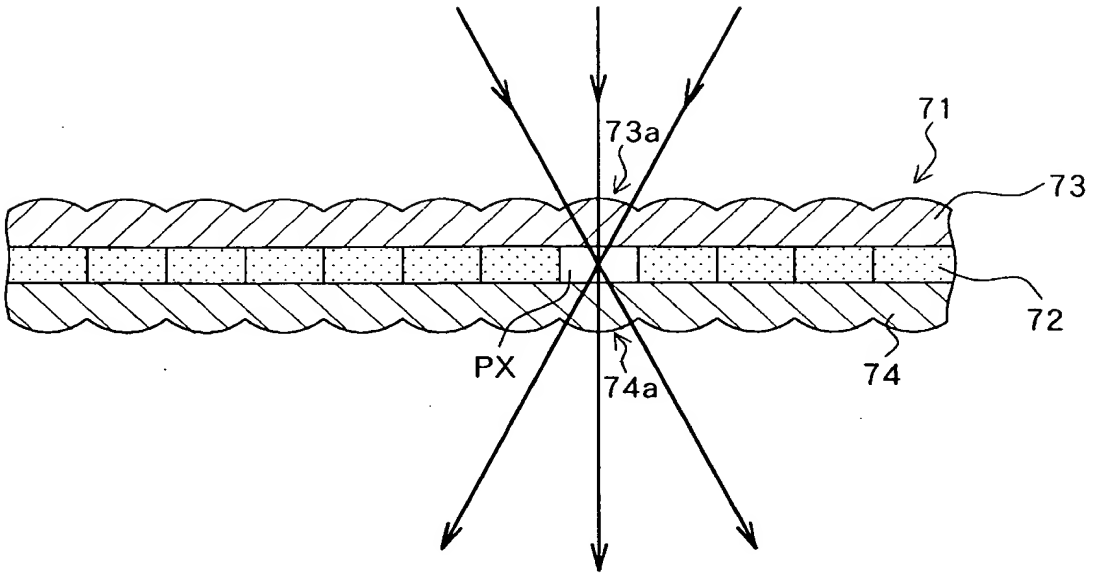



FIG. 25

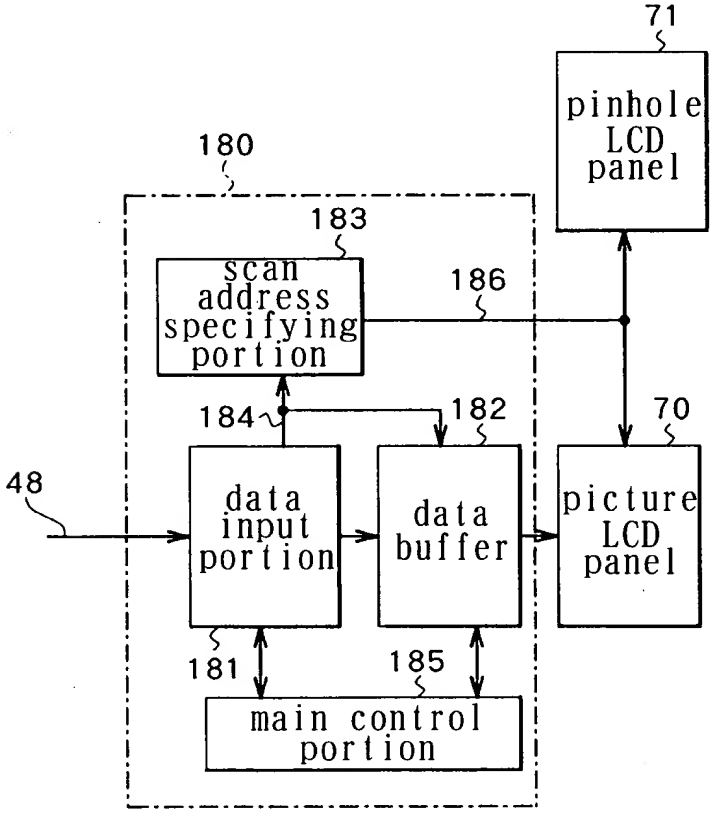



FIG. 26

09646228-050401

0046228 09646228 0046400

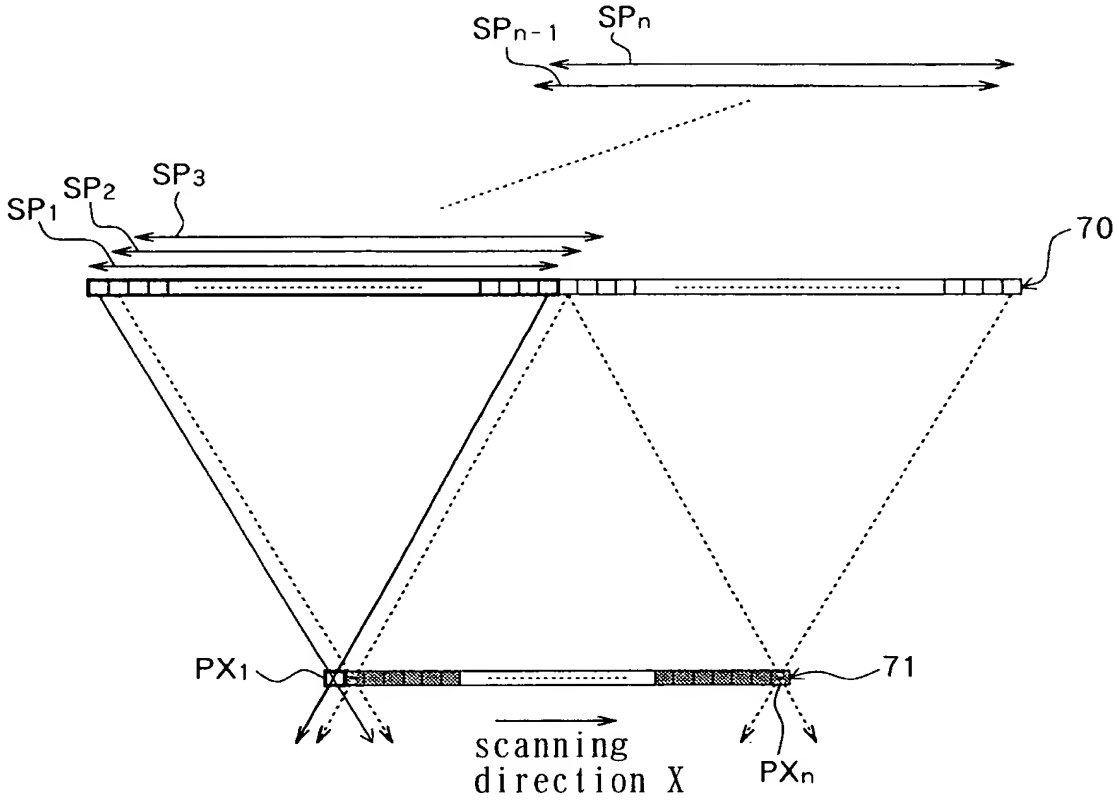



FIG. 27

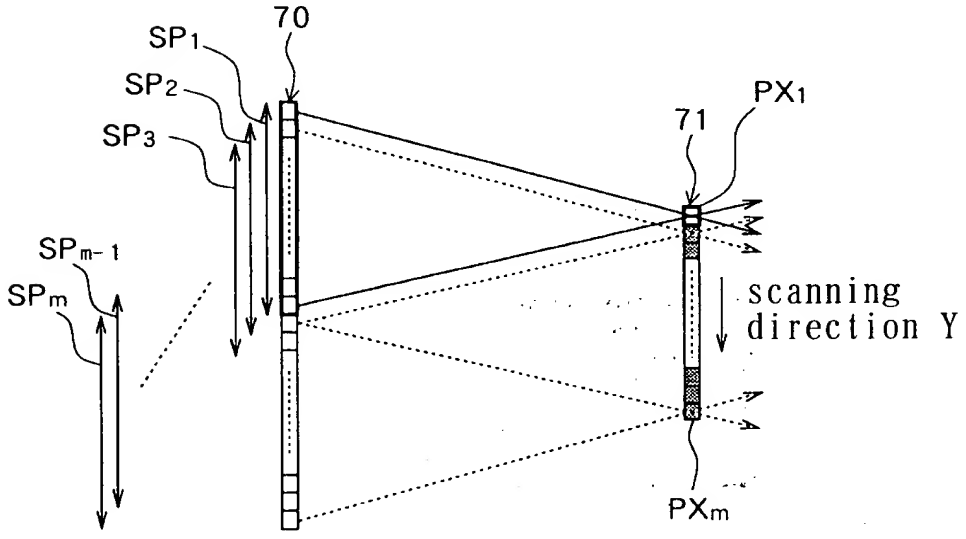



FIG. 28

0056528-000400

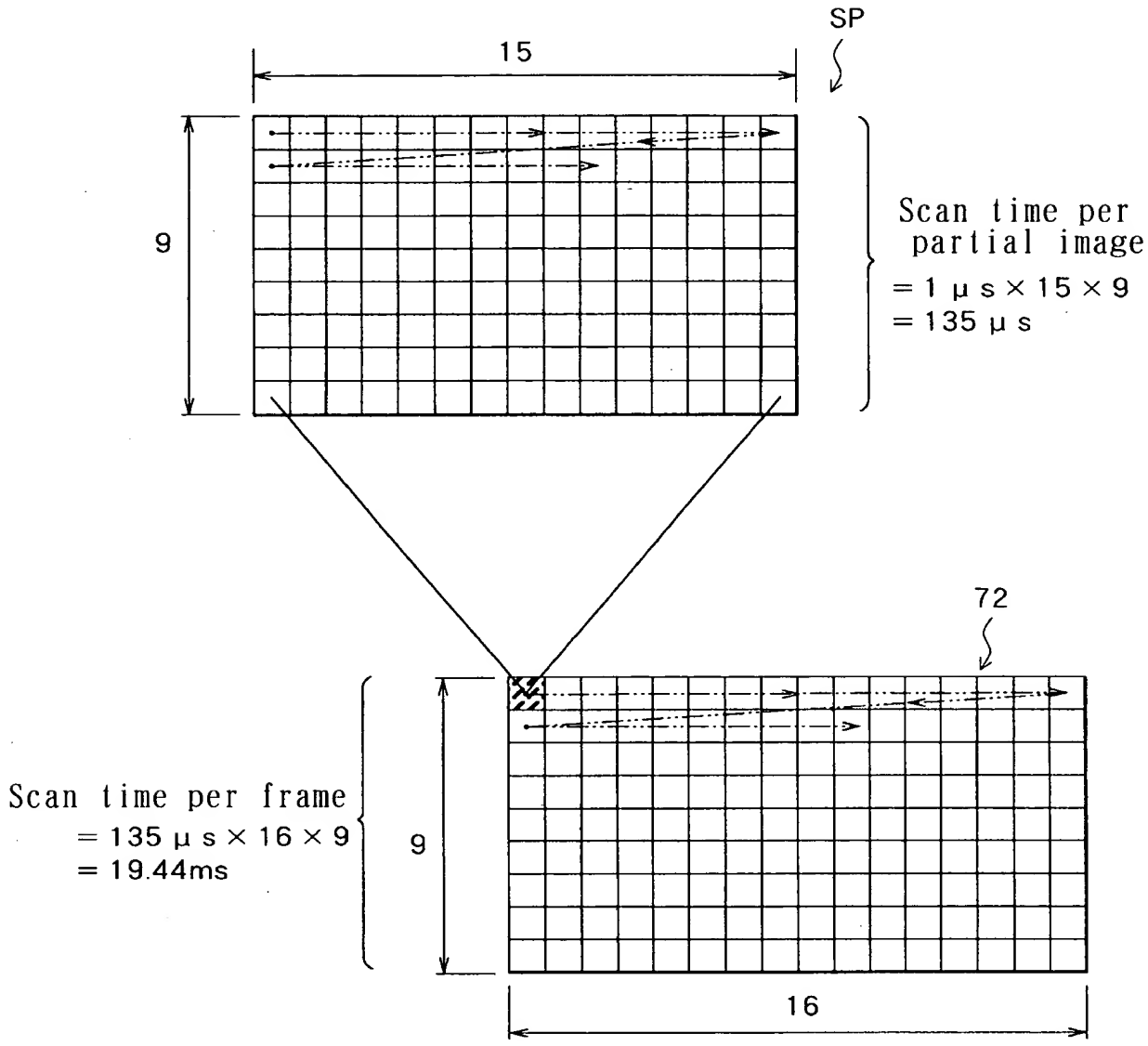



FIG. 29

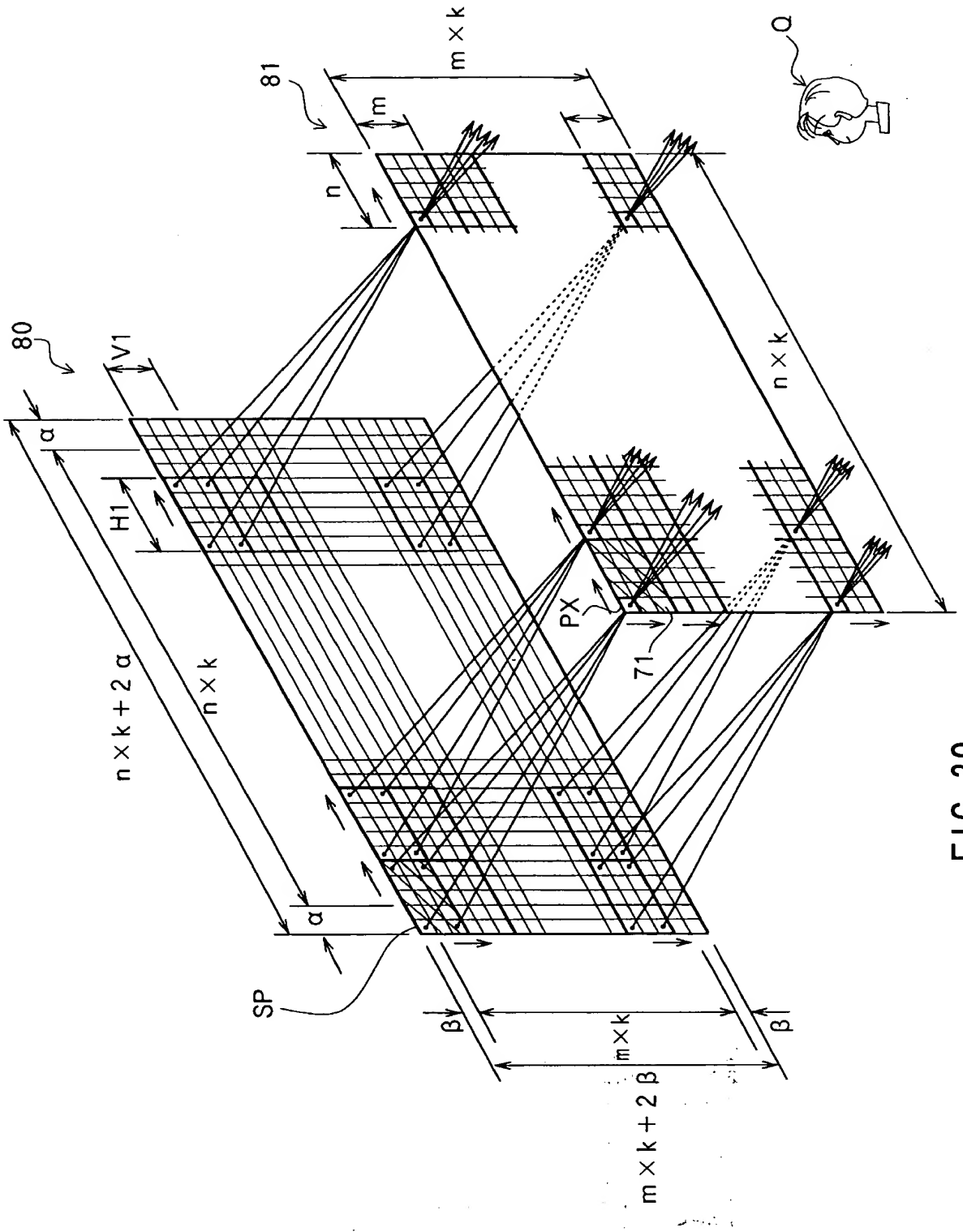



FIG. 30

DOCKET: 82254960

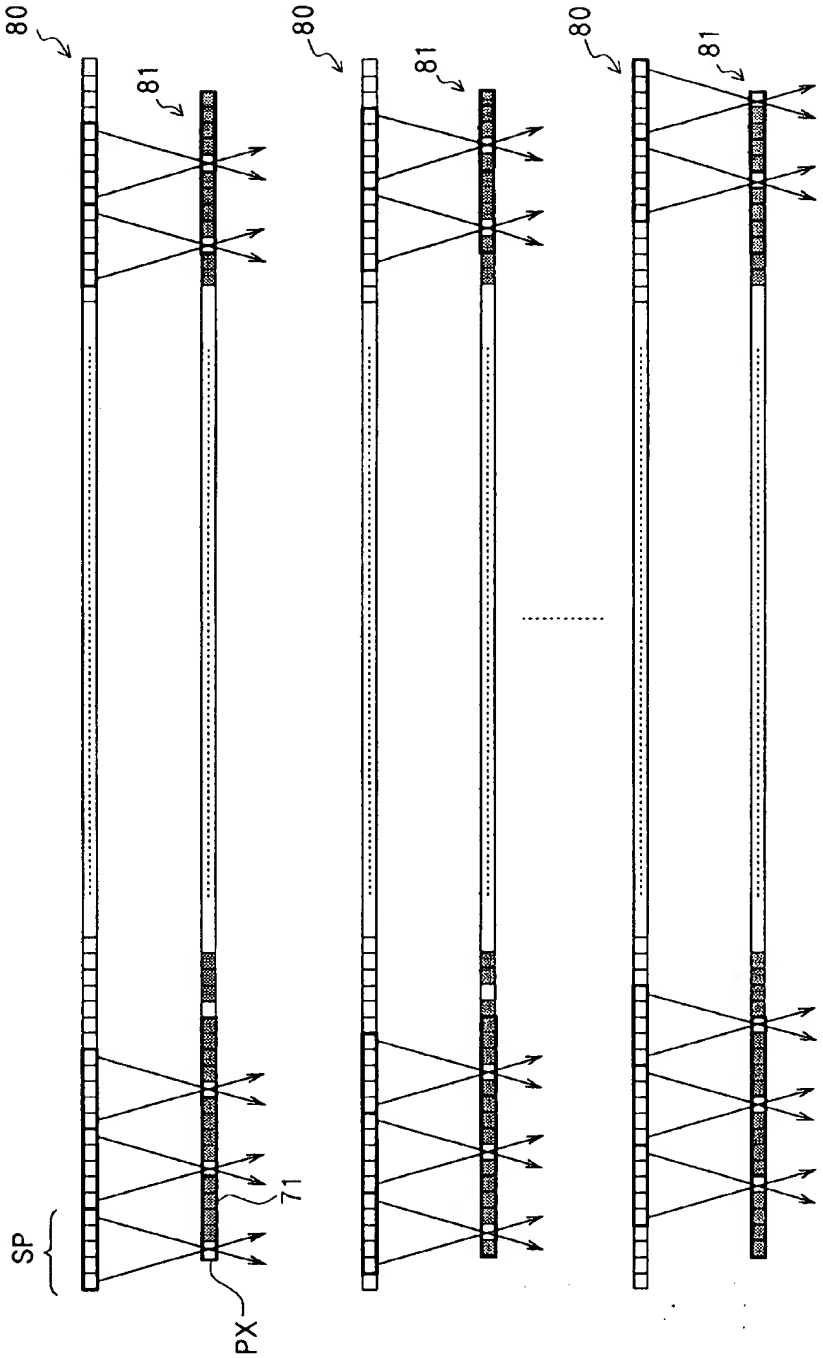



FIG. 31A

FIG. 31B

FIG. 31C

0046228 "82.5.4.20

0054528-090450

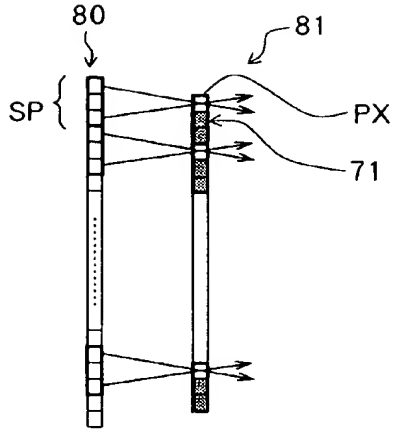



FIG. 32A

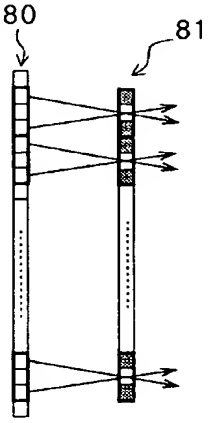



FIG. 32B

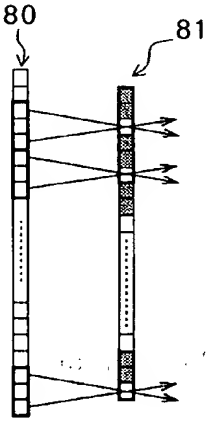



FIG. 32C

09/046228

0004T60 "82294960

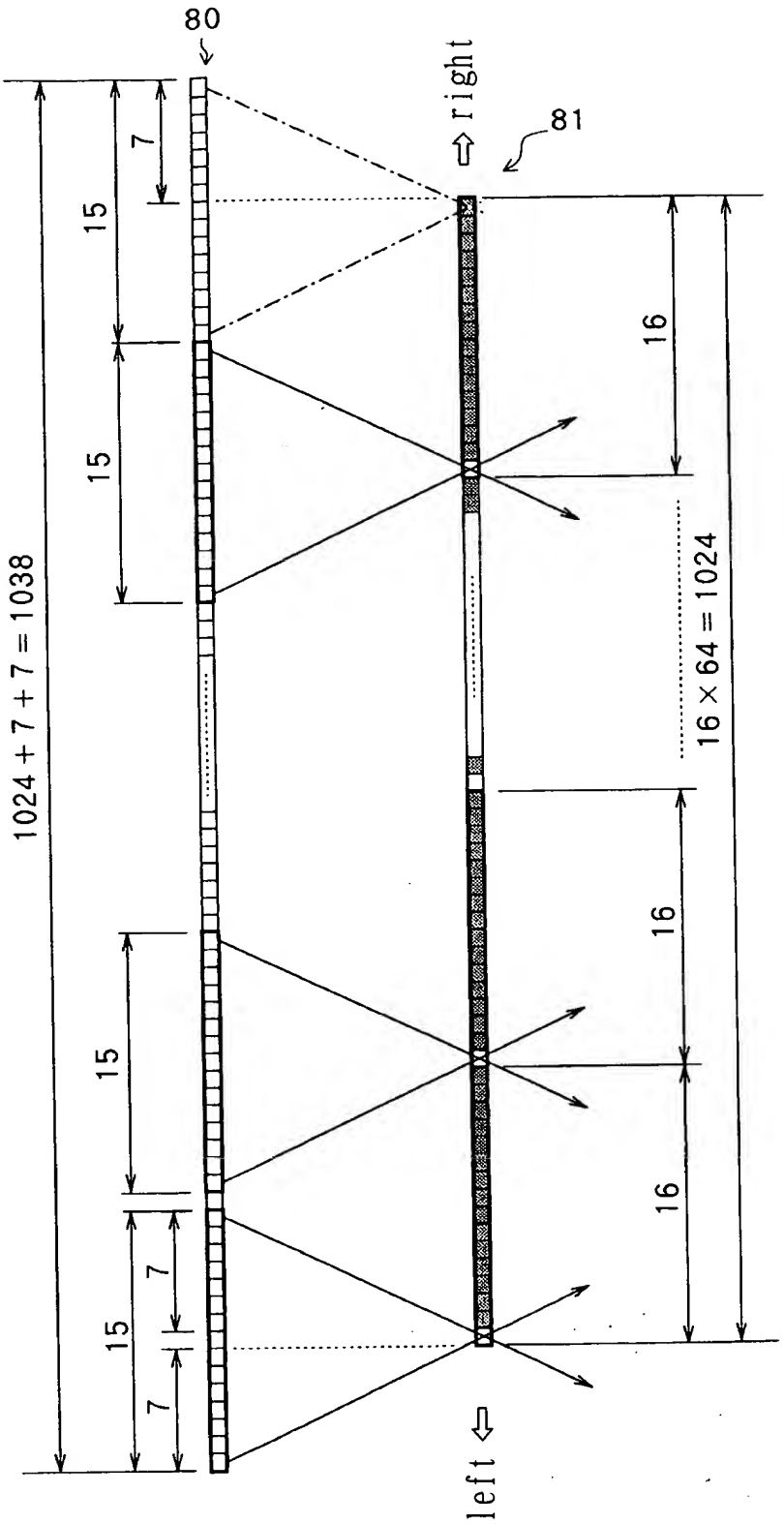



FIG. 33

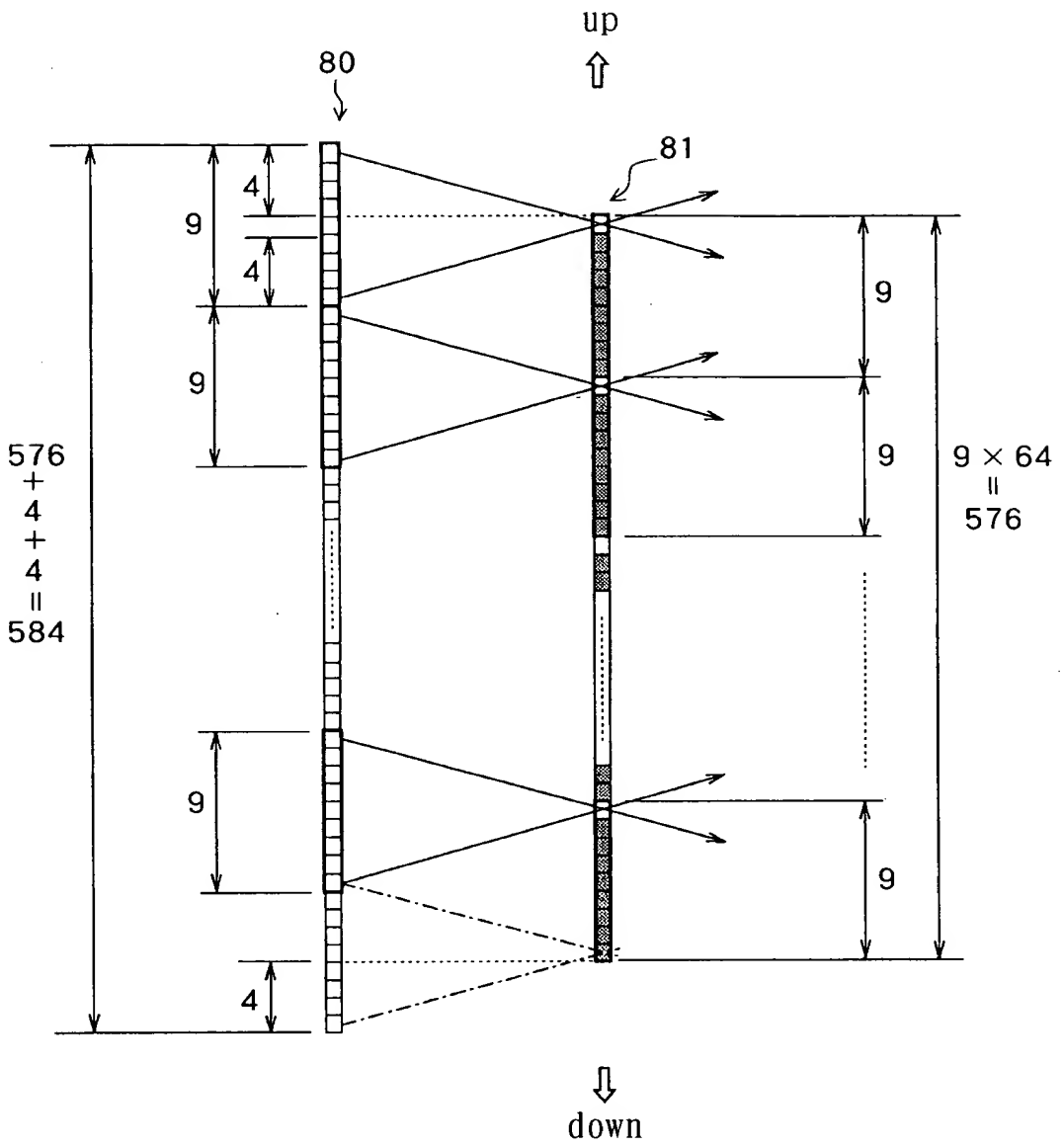



FIG. 34

0054528-0054600

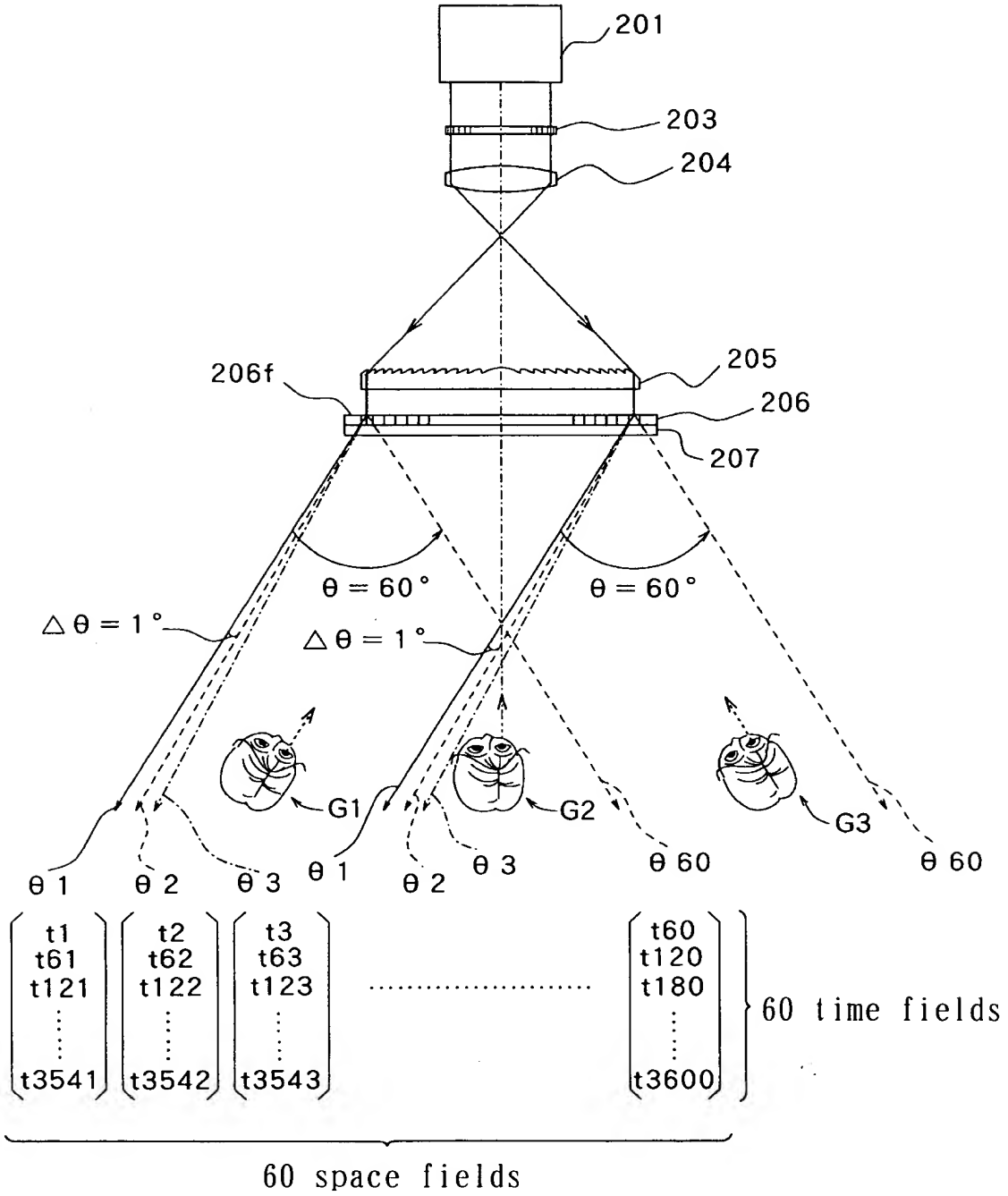

201
203
204
205
206f
206
207
θ = 60°
θ = 60°
△θ = 1°
△θ = 1°
G1
G2
G3
θ 1
θ 2
θ 3
θ 1
θ 2
θ 3
θ 60
θ 60
t1
t61
t121
t2
t62
t122
t3
t63
t123
t60
t120
t180
t3541
t3542
t3543
t3600
60 time fields
60 space fields

FIG. 35

09646228 - 092400

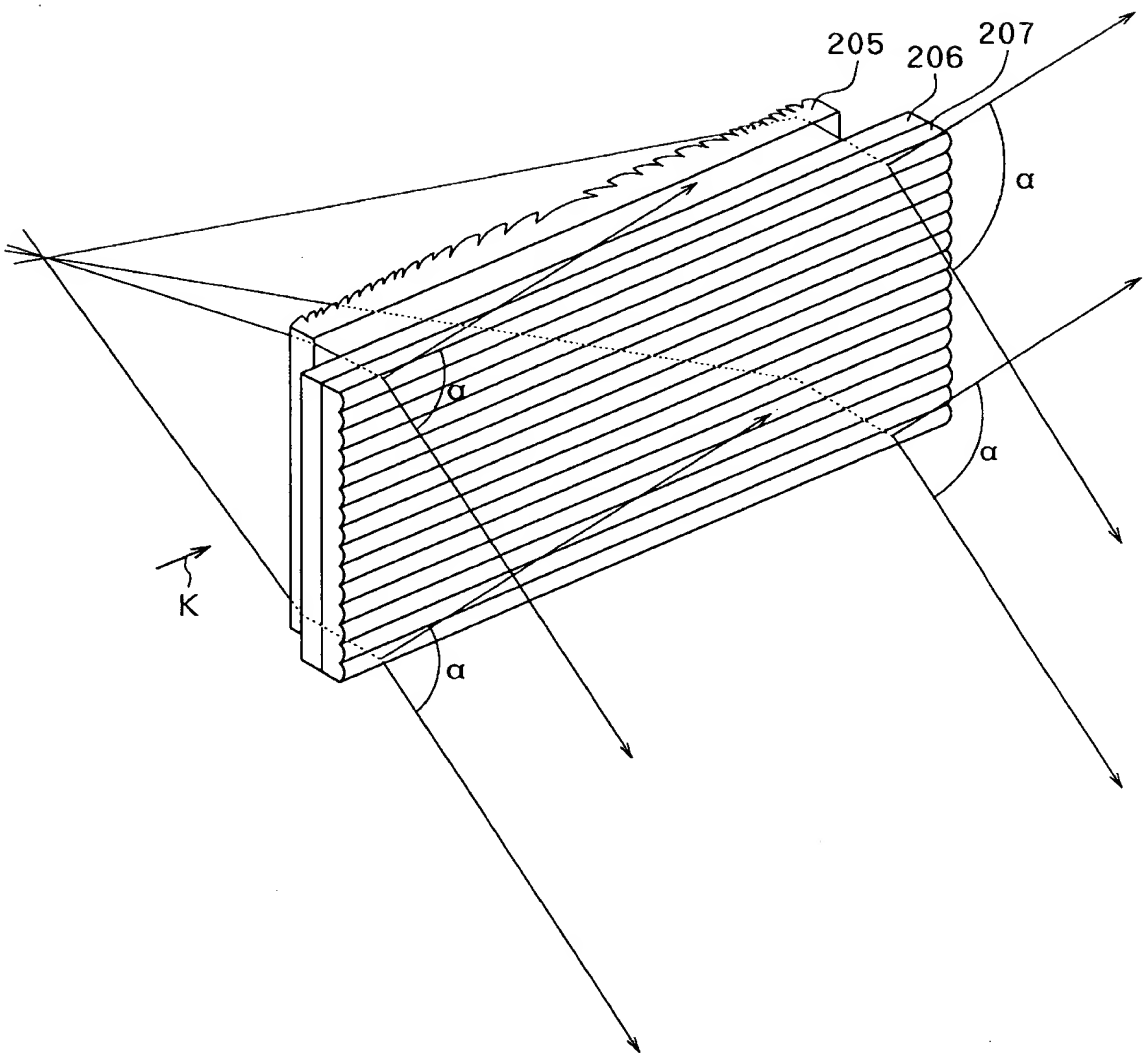



FIG. 36

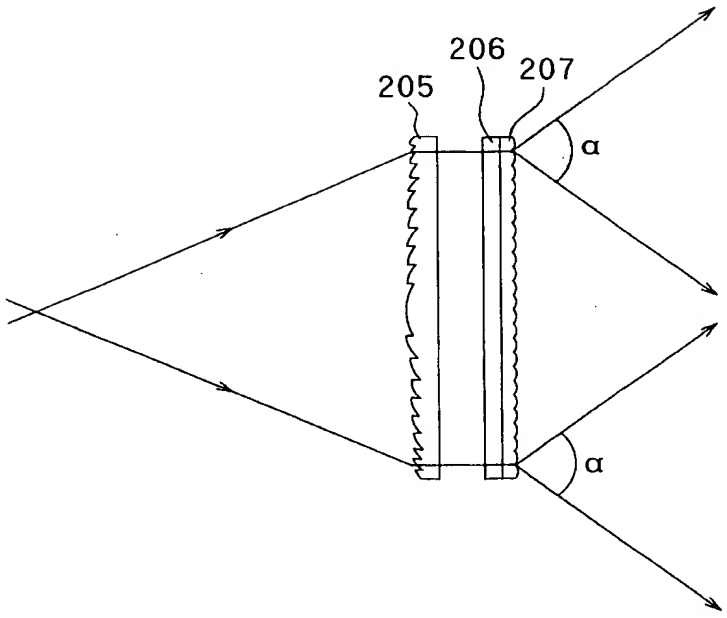



FIG. 37

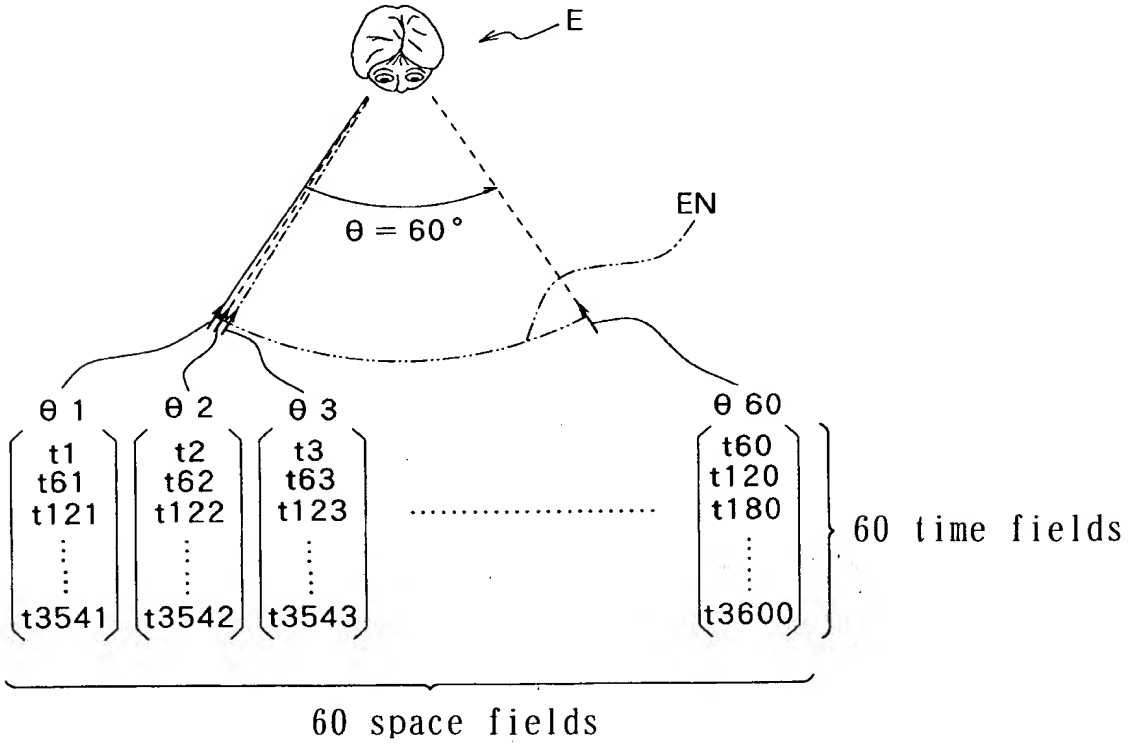



FIG. 38

COPY FROM 09646228

t1〔θ 1〕

FIG. 39A

t30〔θ 30〕

FIG. 39B

t60〔θ 60〕

FIG. 39C

09646228.060501

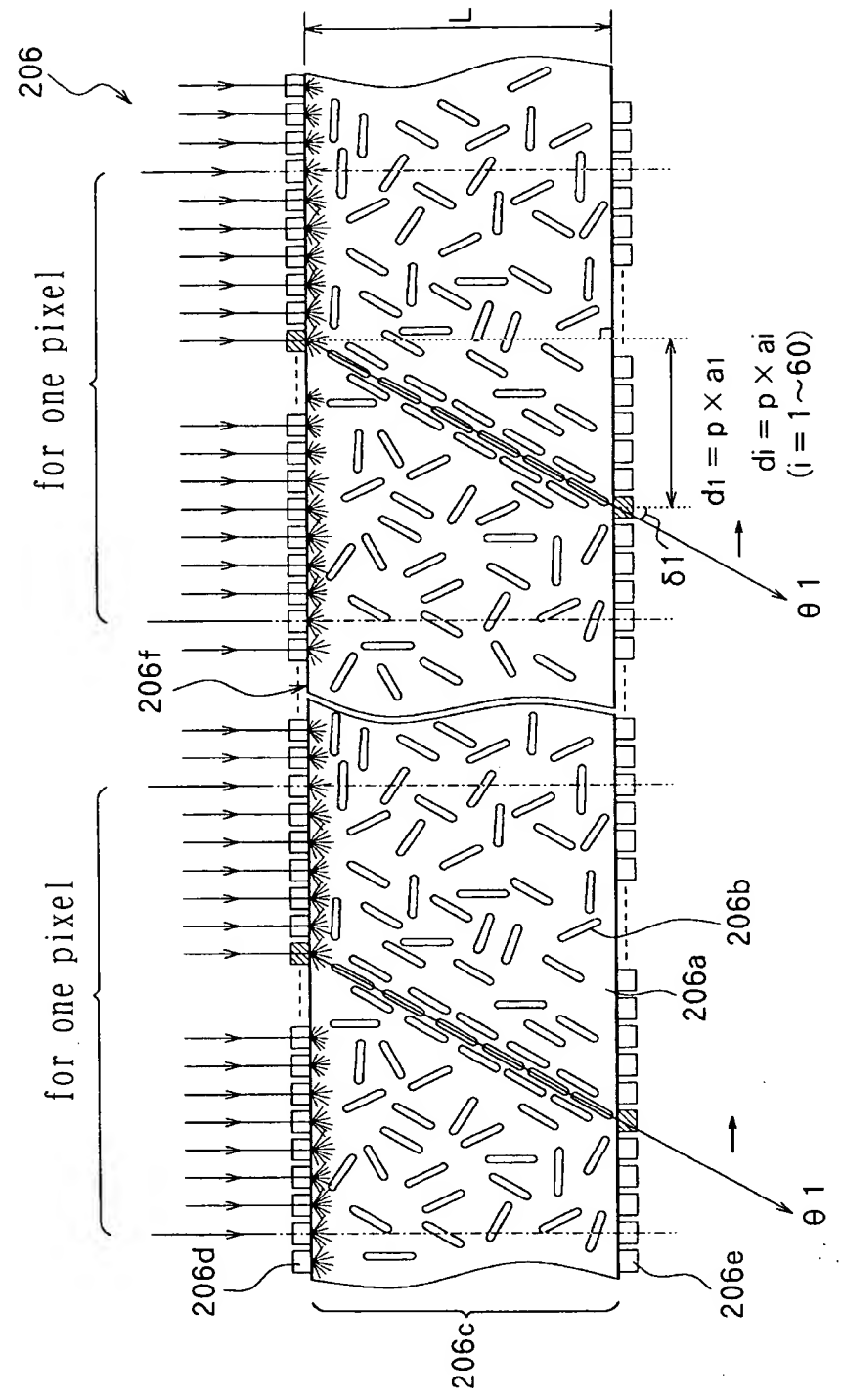

206
L
for one pixel
for one pixel
206f
206b
206a
206d
206c
206e
d1 = p × a1
di = p × ai
(i = 1~60)
δ1
θ1
θ1

FIG. 40

DOCID: "02349600

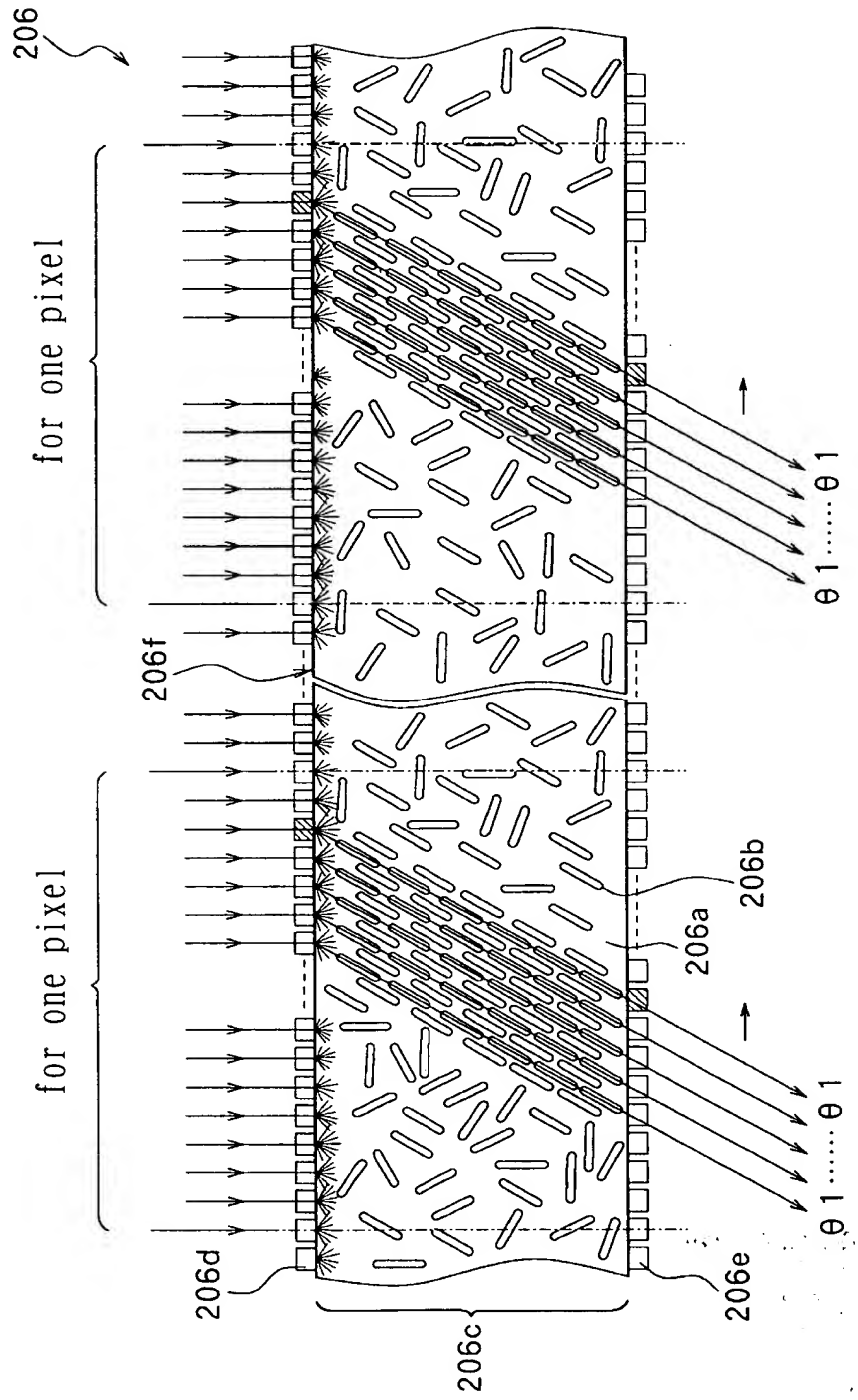



FIG. 41

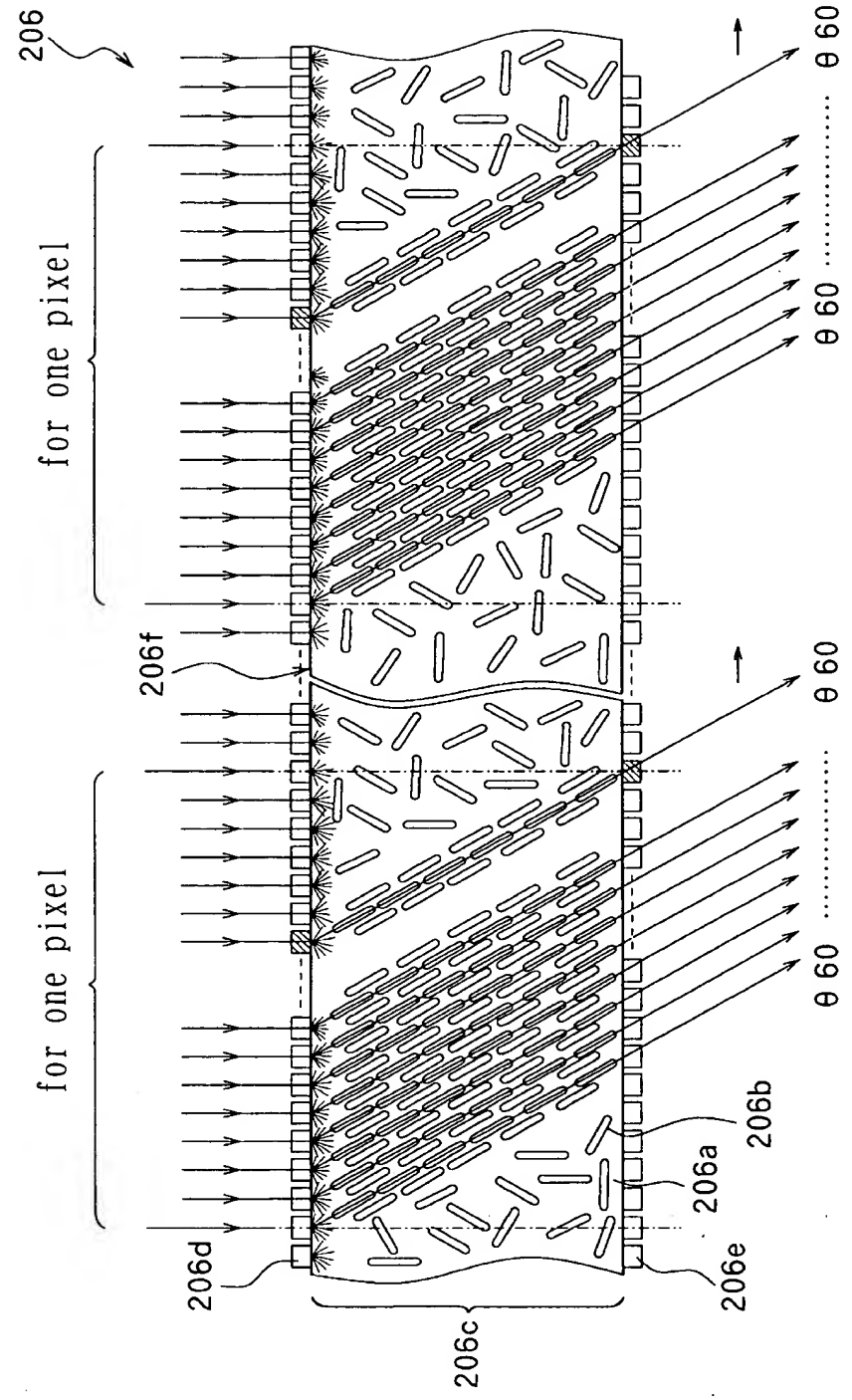

206
for one pixel
for one pixel
206f
206d
206c
206e
206a
206b
θ 60
θ 60
θ 60
θ 60

FIG. 42

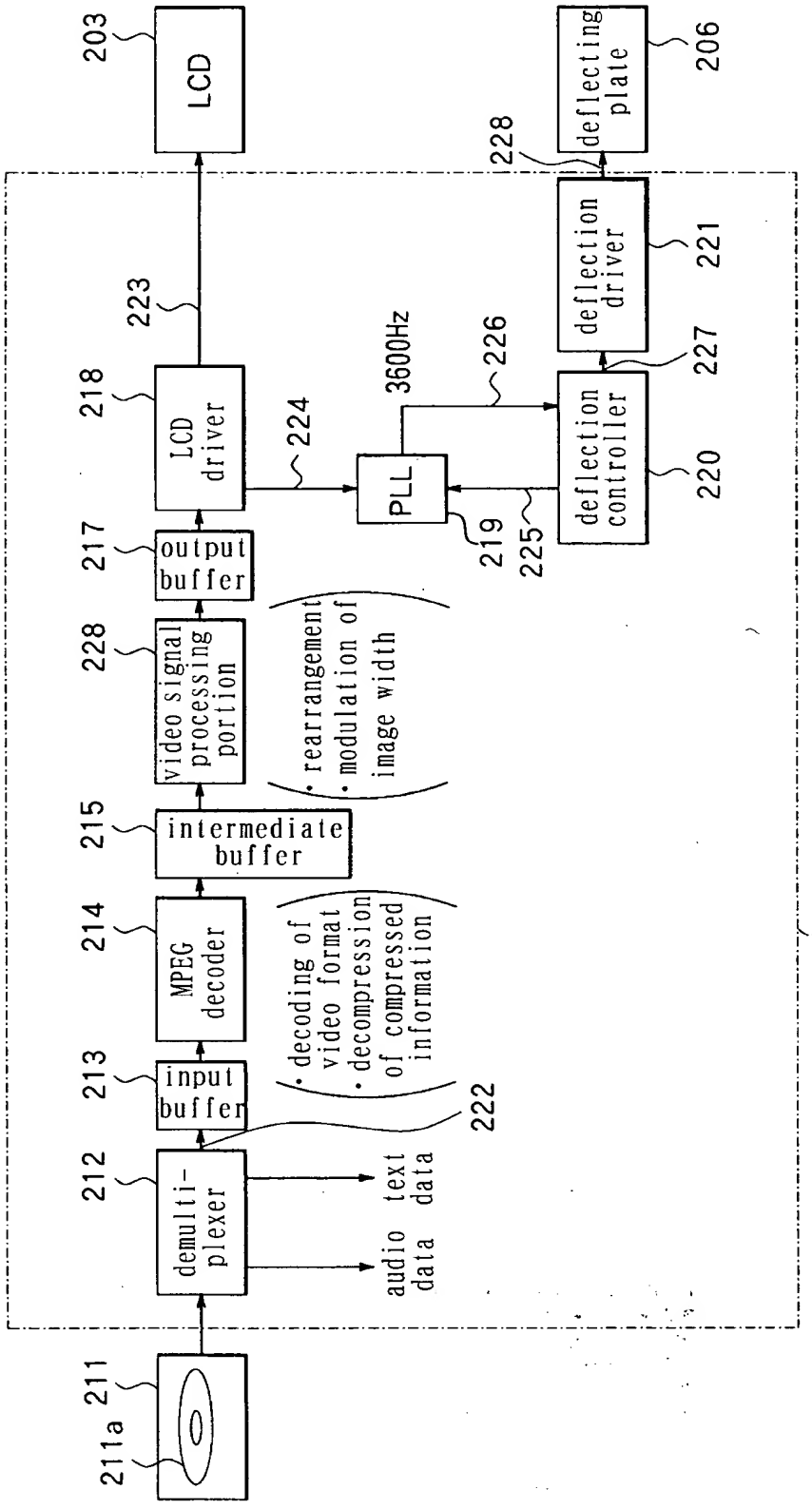

211
211a
demulti-plexer
212
input buffer
213
MPEG decoder
214
intermediate buffer
215
video signal processing portion
228
output buffer
217
LCD driver
218
LCD
203
223
audio data
text data
222
• decoding of video format
• decompression of compressed information
• rearrangement
• modulation of image width
224
PLL
219
3600Hz
226
225
deflection controller
220
deflection driver
221
227
deflecting plate
206
228
210

FIG. 43

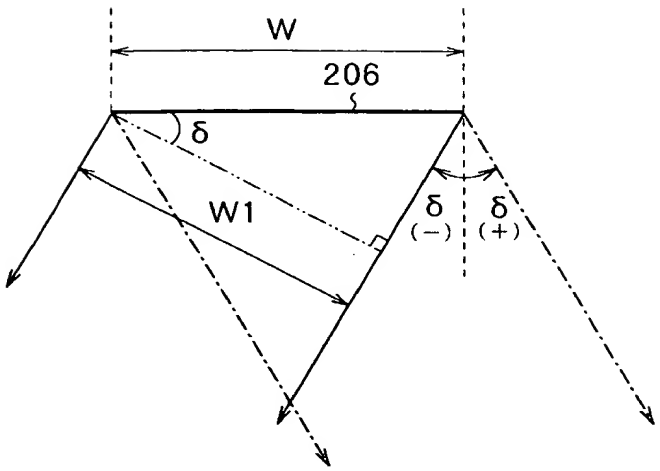



FIG. 44

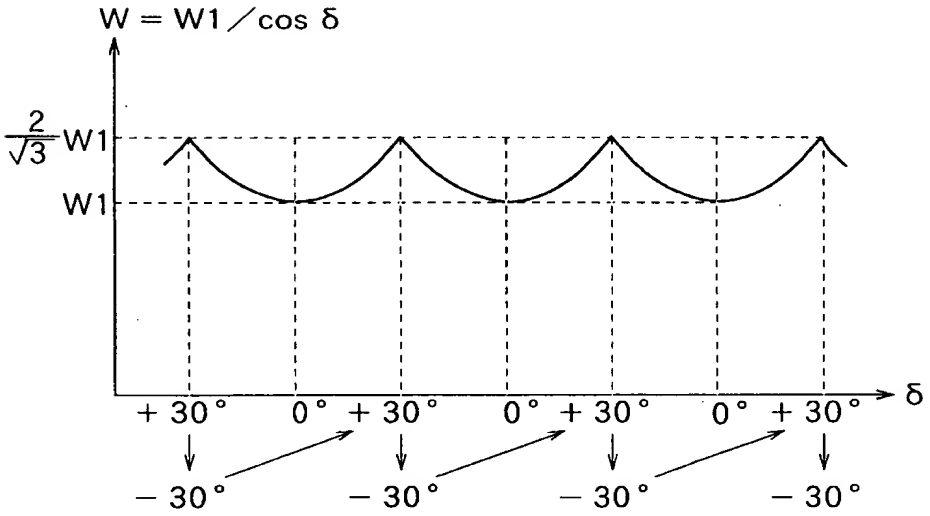
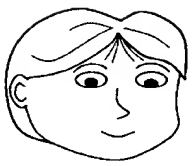
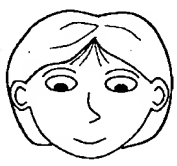



FIG. 45



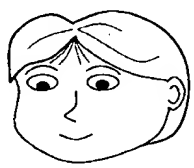
δ = − 30°
(t1〔θ 1〕)

FIG. 46A



δ = 0°
(t30〔θ 30〕)

FIG. 46B



δ = + 30°
(t60〔θ 60〕)

FIG. 46C

0044-0056-0228-0950

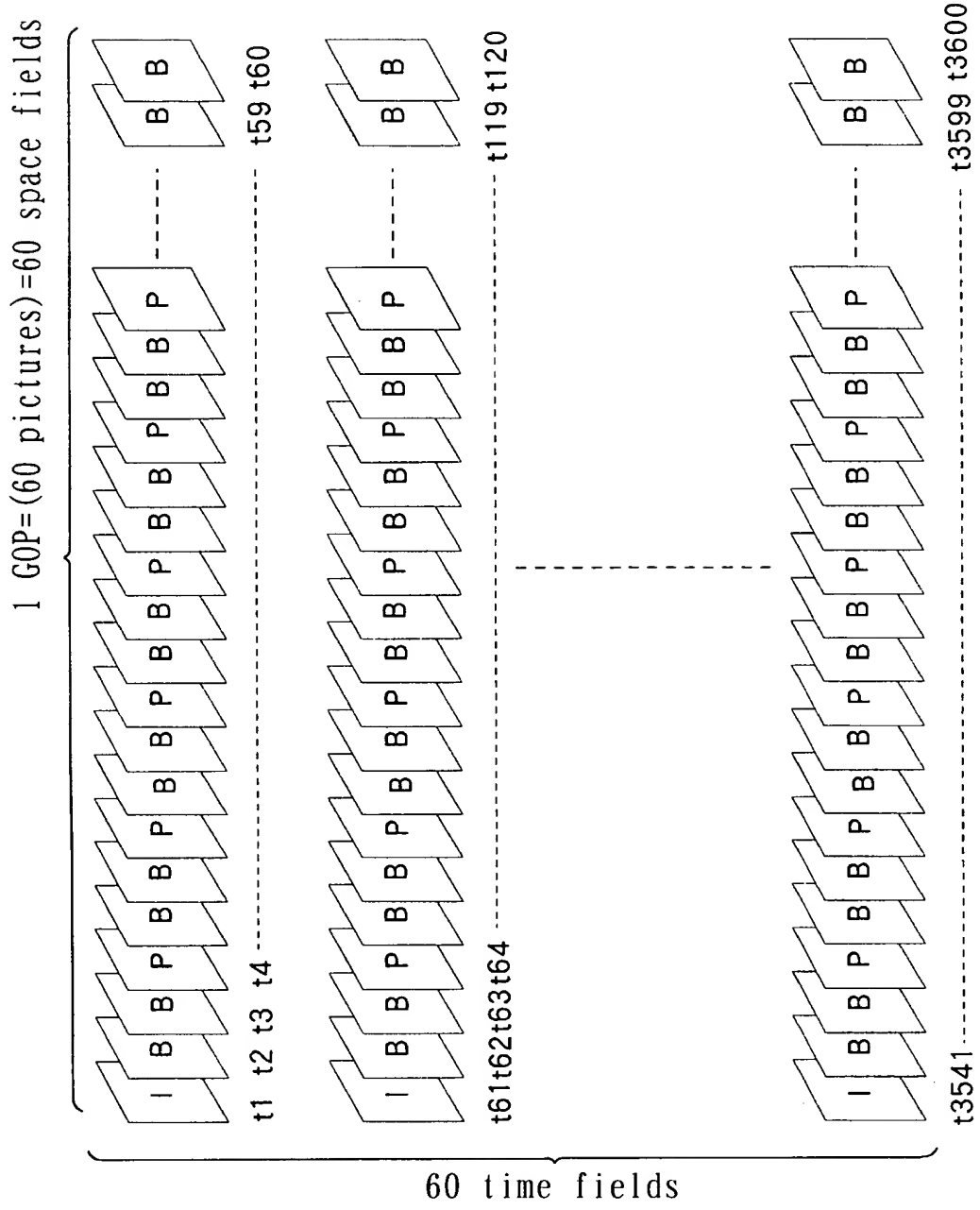

1 GOP=(60 pictures)=60 space fields
I B B P B B P B B P B B P B B P B B P B B P B B P B B P B B P B B
t1 t2 t3 t4
t59 t60
t61t62t63t64
t119 t120
t3541
t3599 t3600
60 time fields

FIG. 47

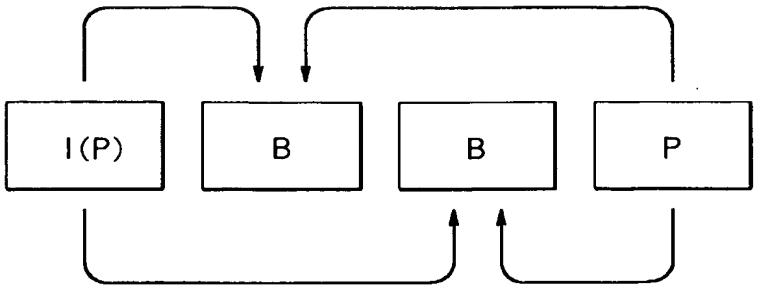



FIG. 48

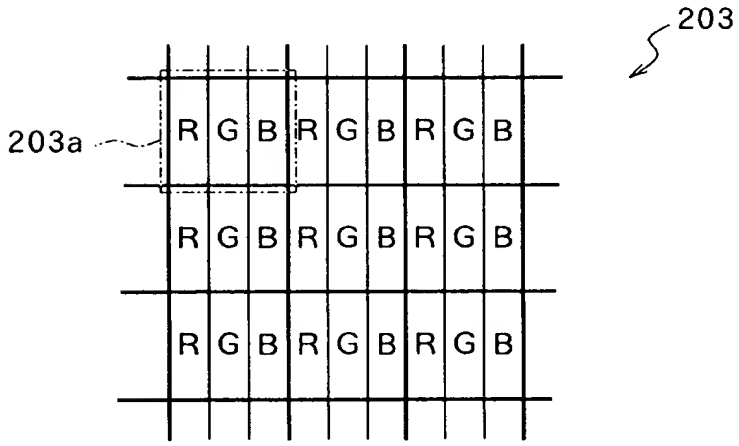



FIG. 49

0054.0026.0054.0060

FIG. 50

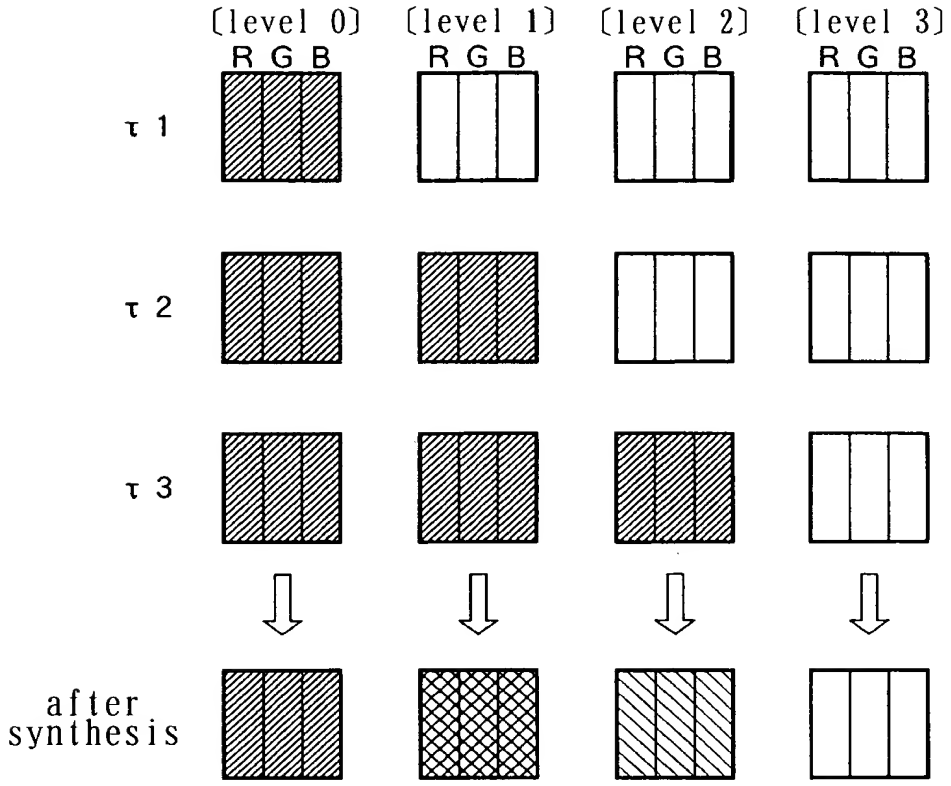
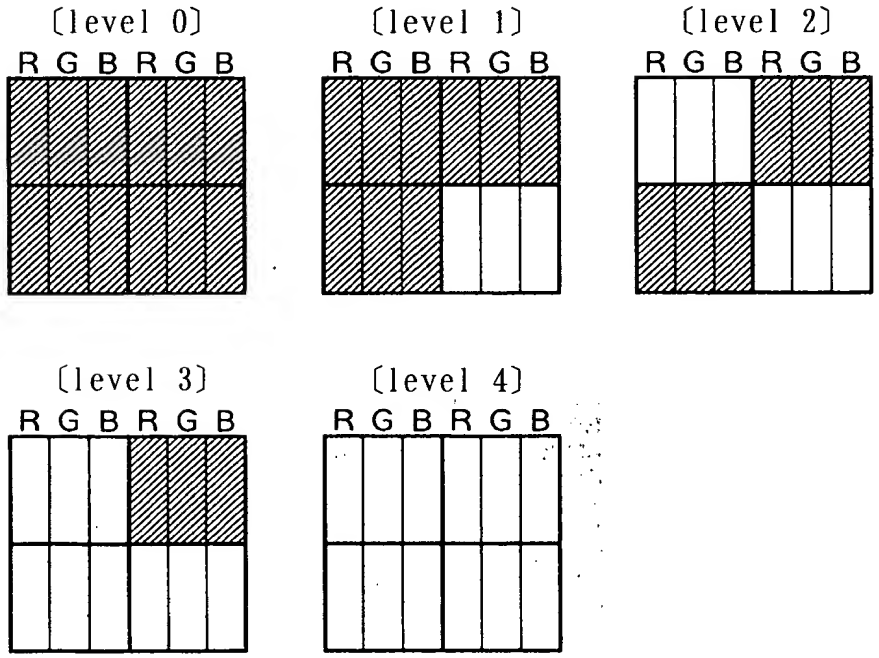



FIG. 51




JP03-056228-0043

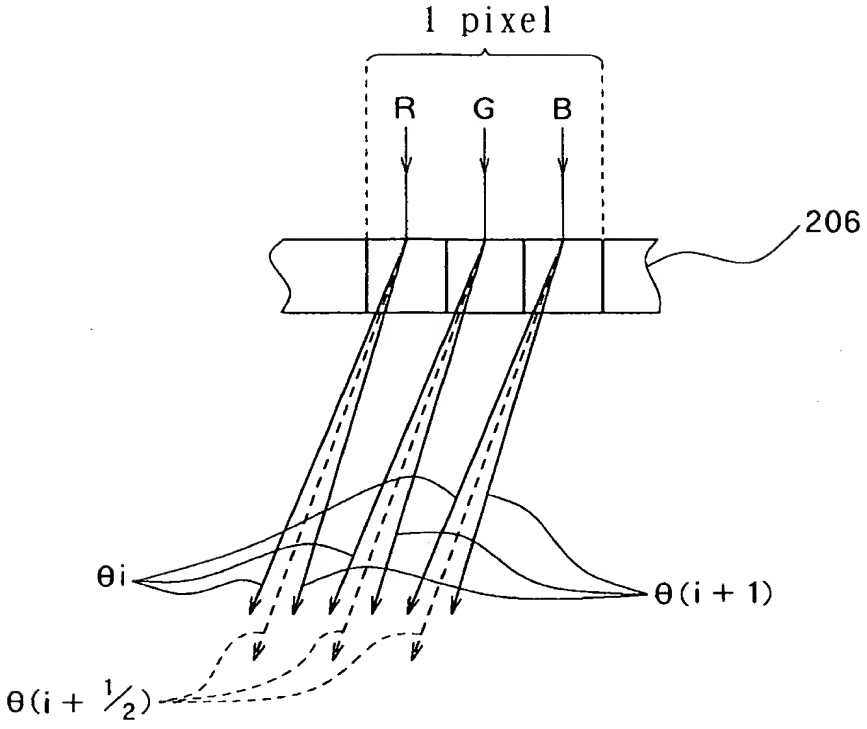

1 pixel
R
G
B
206
θi
θ(i + 1)
θ(i + 1/2)

FIG. 52

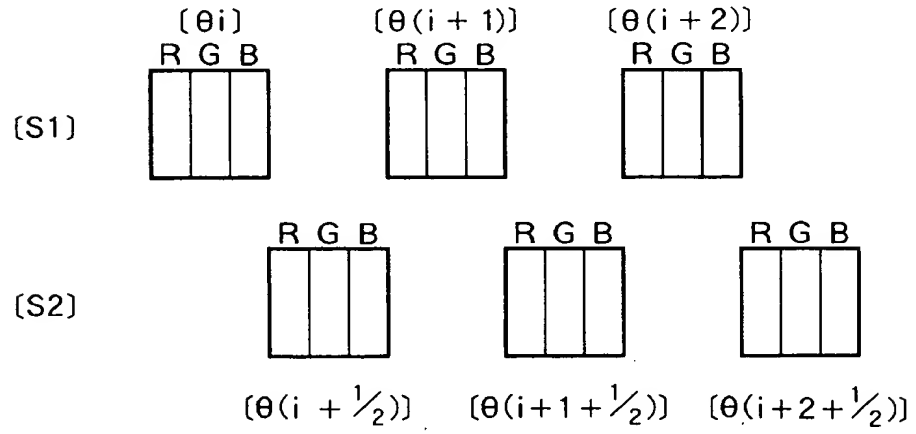

[θi]
[θ(i + 1)]
[θ(i + 2)]
R G B
[S1]
[S2]
[θ(i + 1/2)]
[θ(i+1+1/2)]
[θ(i+2+1/2)]

FIG. 53

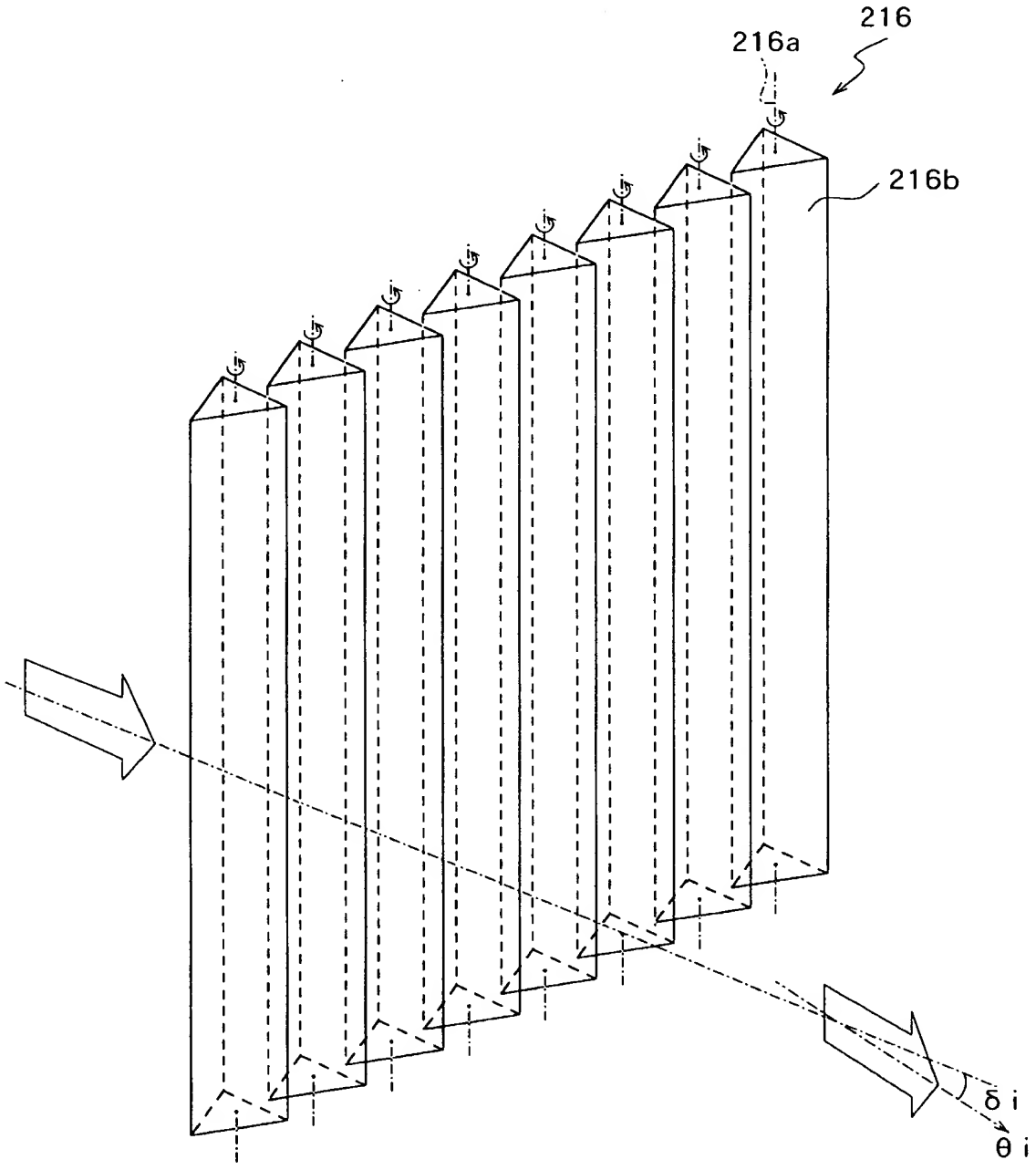



FIG. 54

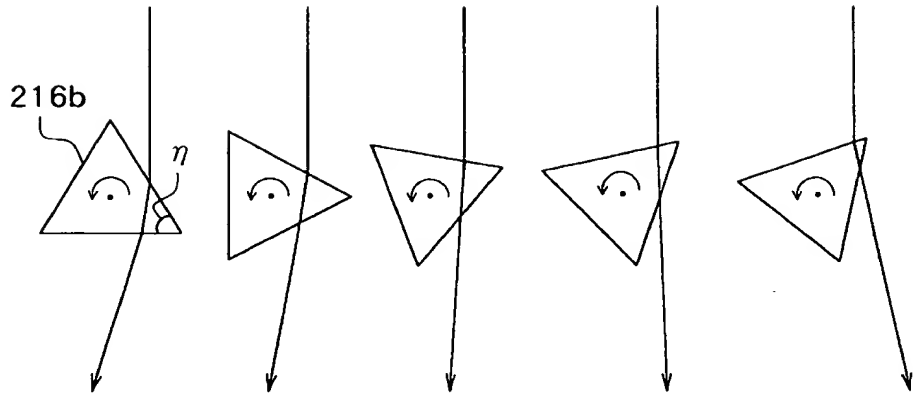



FIG. 55A FIG. 55B FIG. 55C FIG. 55D FIG. 55E

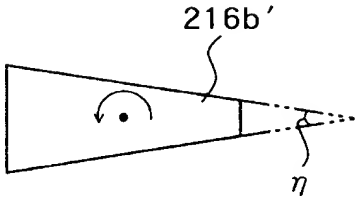



FIG. 56

JP2005-352326 2005.12.22

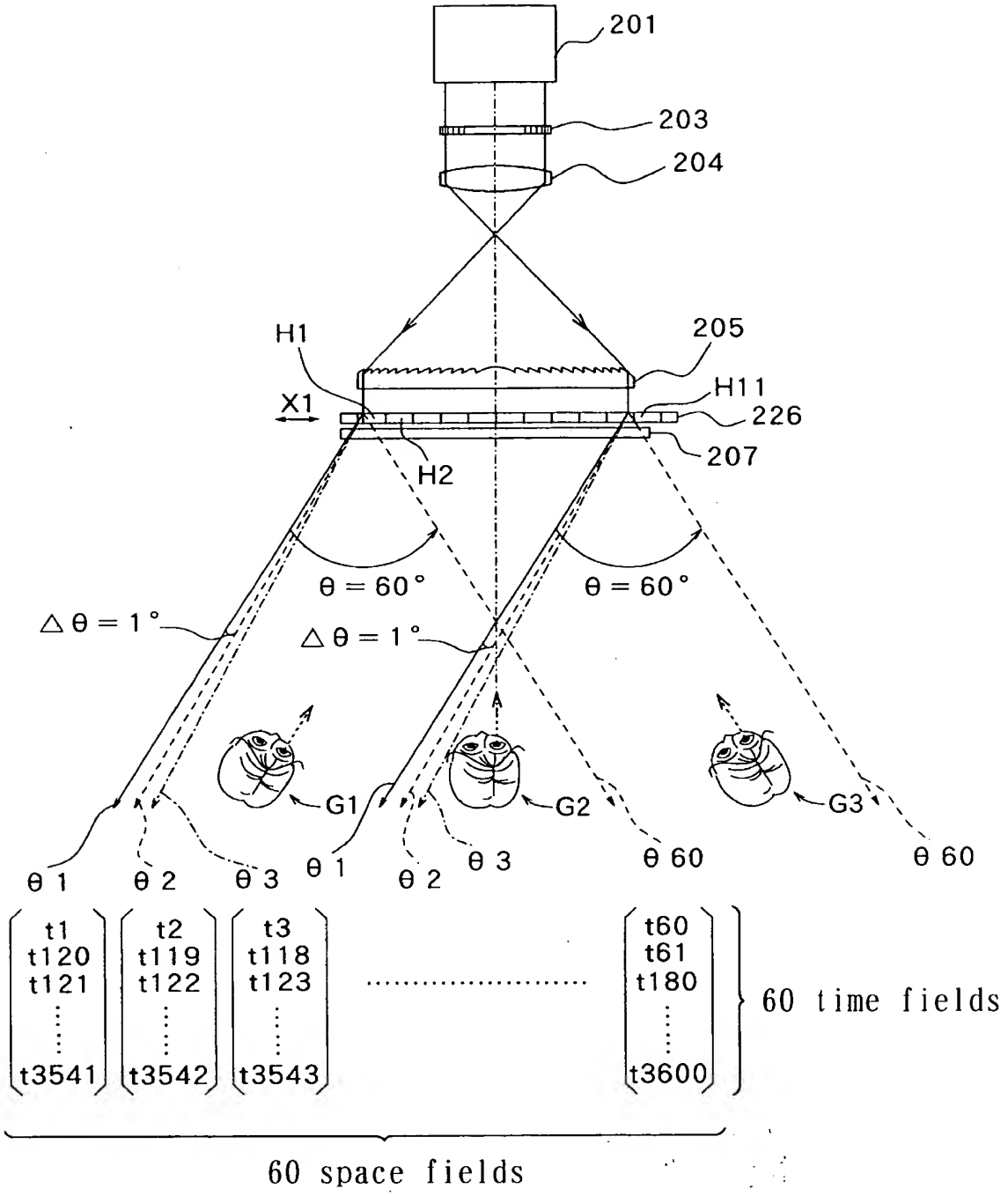



FIG. 57

09/646228 PCT/JP99/01228

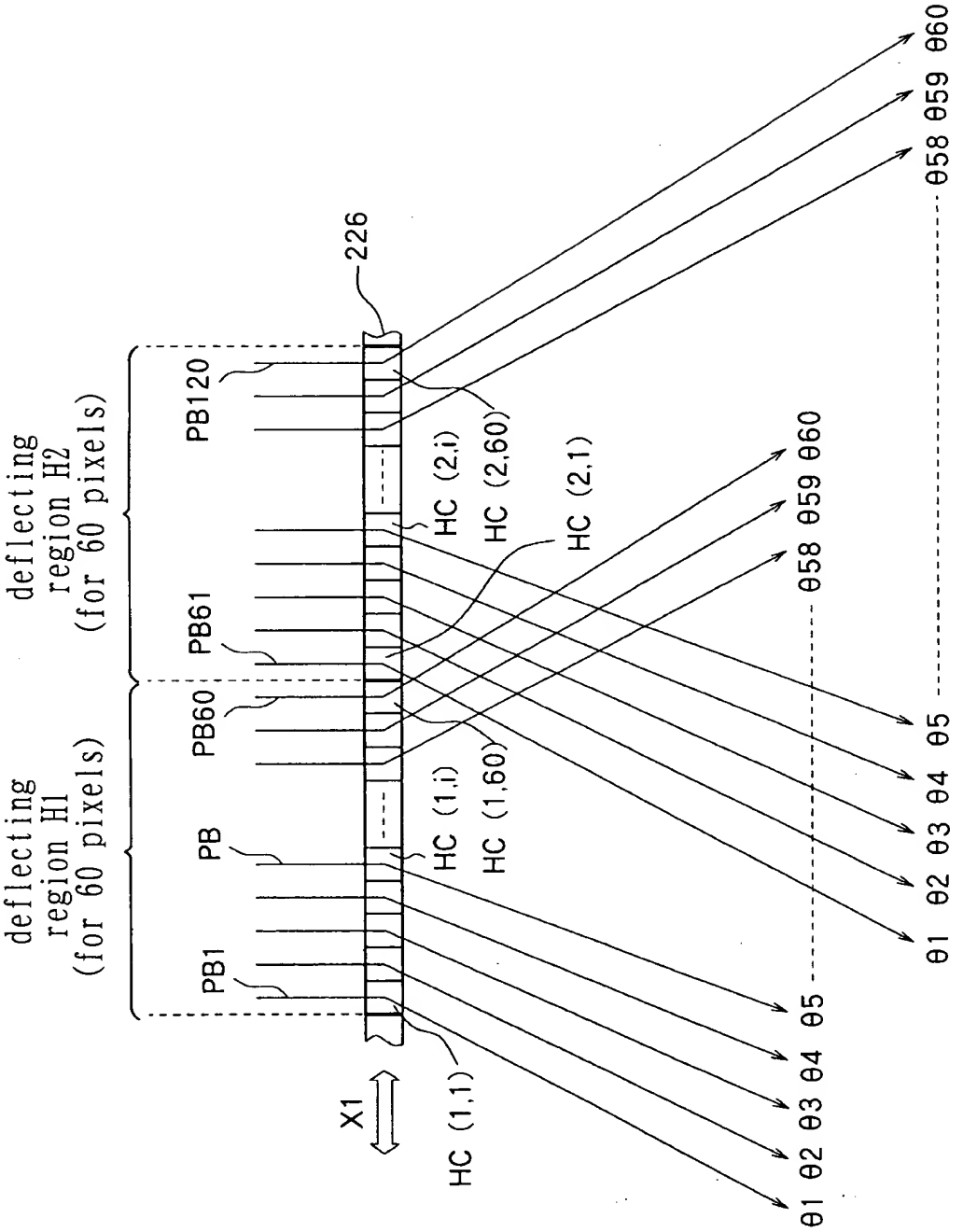

deflecting region H1 (for 60 pixels)
deflecting region H2 (for 60 pixels)
PB1
PB
PB60
PB61
PB120
226
HC (1,1)
HC (1,i)
HC (1,60)
HC (2,1)
HC (2,i)
HC (2,60)
X1
θ1 θ2 θ3 θ4 θ5
θ58 θ59 θ60

FIG. 58

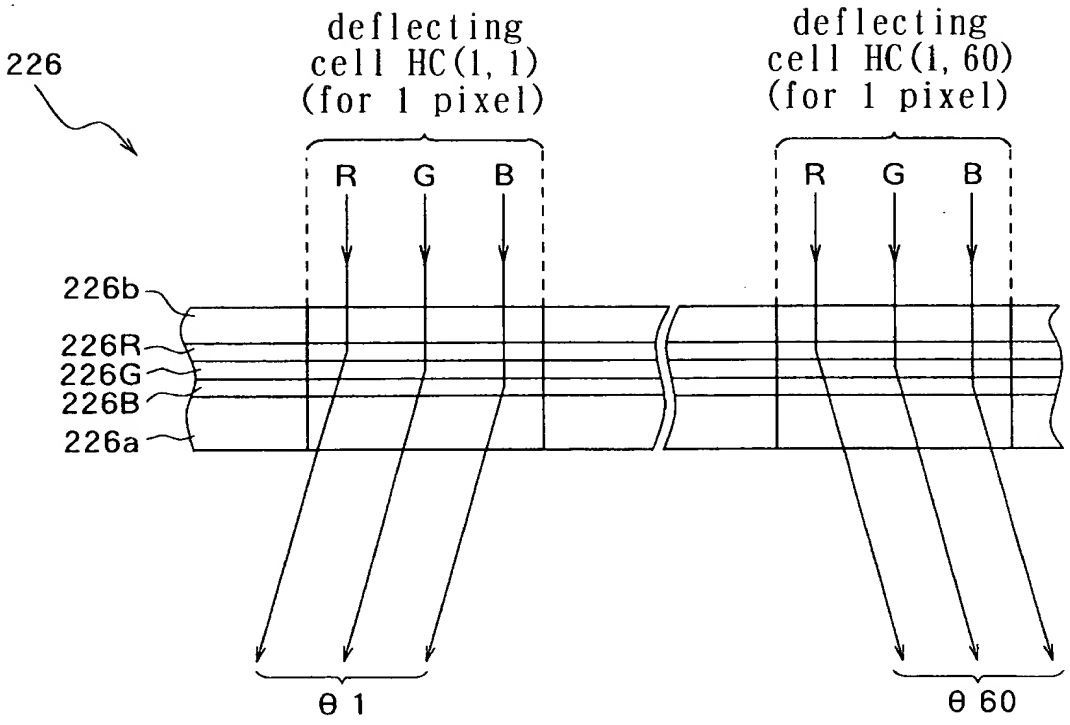



FIG. 59

09646228 - 091502

FIG. 60

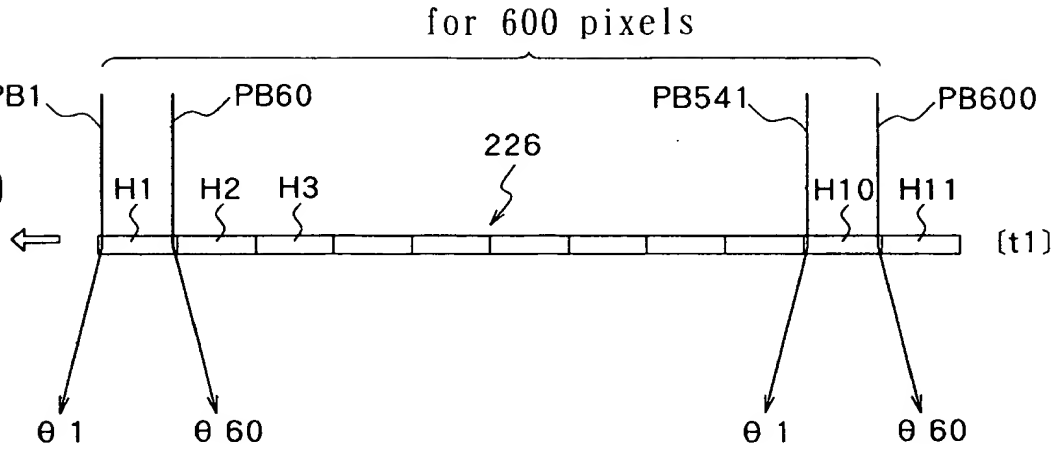



FIG. 61

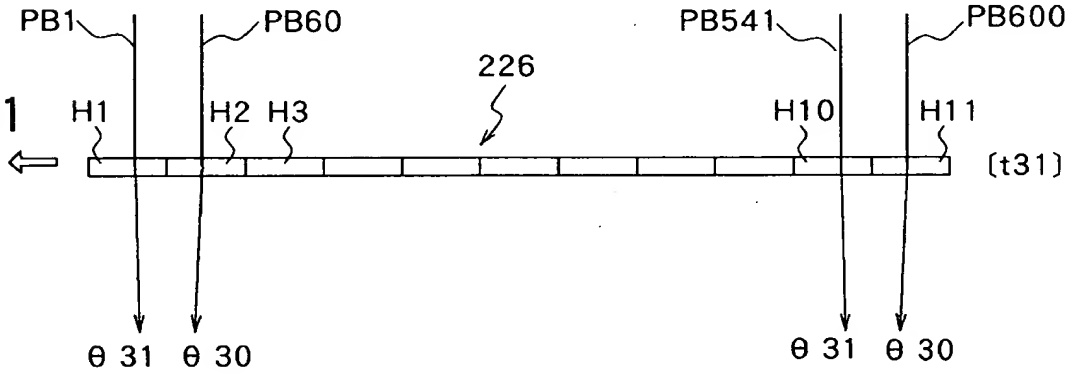
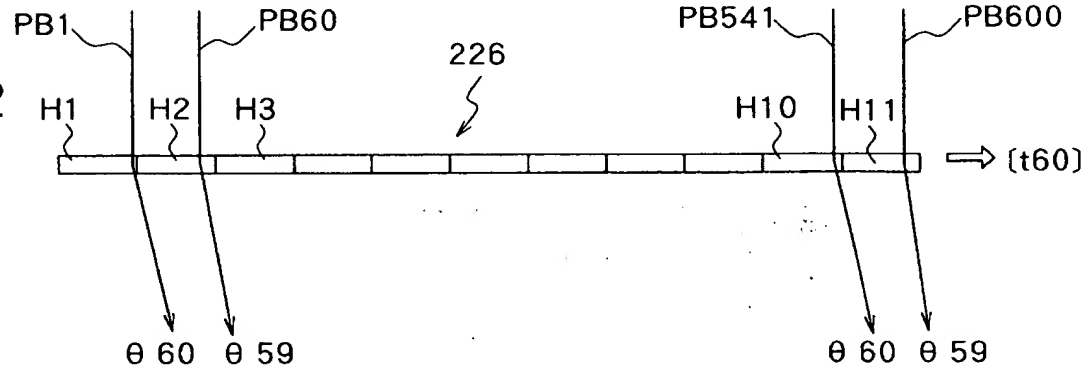
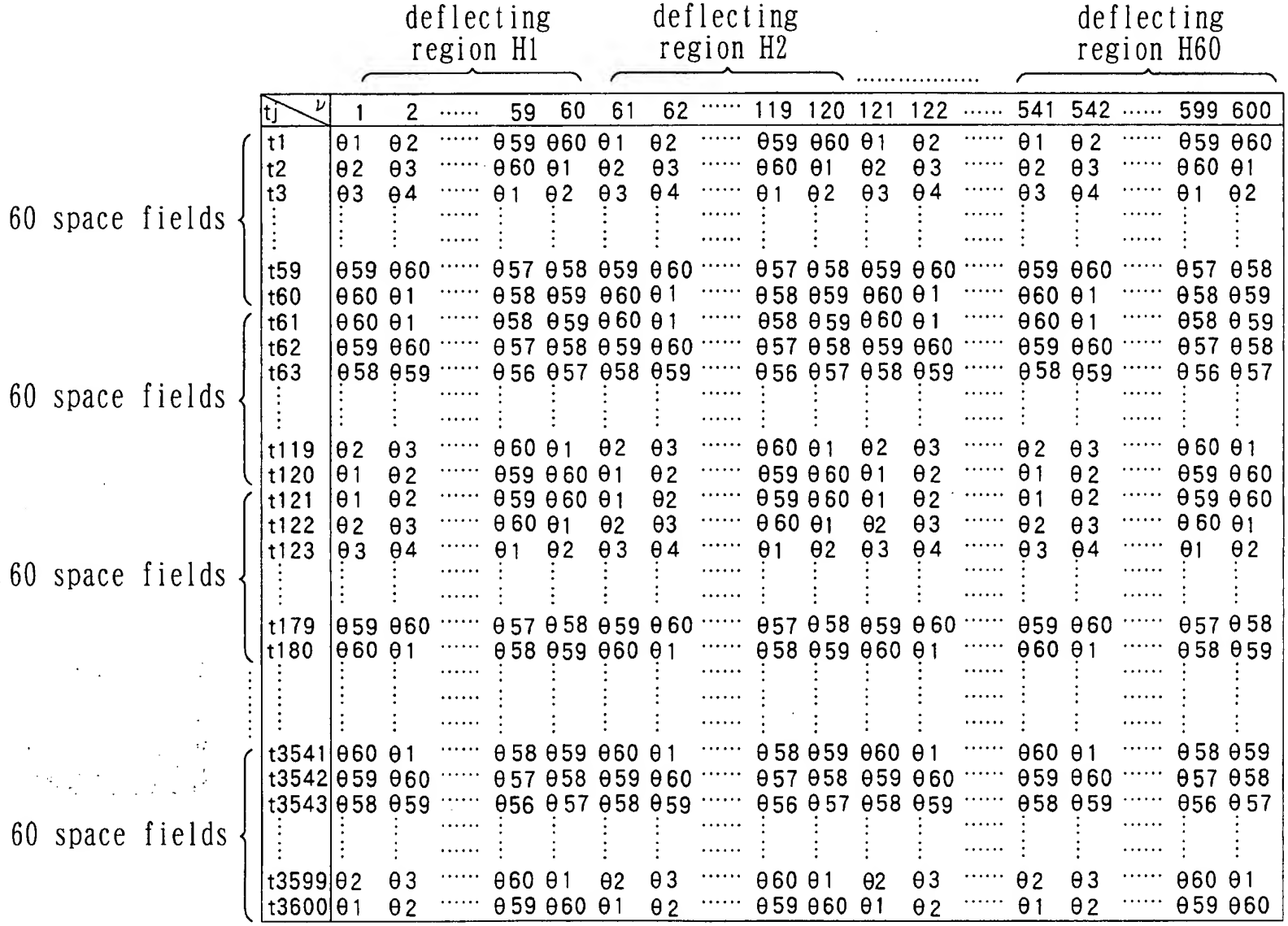



FIG. 62




JP03-056200-A/0056




| tj \ ν | 1 | 2 | ····· | 59 | 60 | 61 | 62 | ····· | 119 | 120 | 121 | 122 | ····· | 541 | 542 | ····· | 599 | 600 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| t1 | θ1 | θ2 | ····· | θ59 | θ60 | θ1 | θ2 | ····· | θ59 | θ60 | θ1 | θ2 | ····· | θ1 | θ2 | ····· | θ59 | θ60 |
| t2 | θ2 | θ3 | ····· | θ60 | θ1 | θ2 | θ3 | ····· | θ60 | θ1 | θ2 | θ3 | ····· | θ2 | θ3 | ····· | θ60 | θ1 |
| t3 | θ3 | θ4 | ····· | θ1 | θ2 | θ3 | θ4 | ····· | θ1 | θ2 | θ3 | θ4 | ····· | θ3 | θ4 | ····· | θ1 | θ2 |
| ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ····· | ⋮ | ⋮ |
| t59 | θ59 | θ60 | ····· | θ57 | θ58 | θ59 | θ60 | ····· | θ57 | θ58 | θ59 | θ60 | ····· | θ59 | θ60 | ····· | θ57 | θ58 |
| t60 | θ60 | θ1 | ····· | θ58 | θ59 | θ60 | θ1 | ····· | θ58 | θ59 | θ60 | θ1 | ····· | θ60 | θ1 | ····· | θ58 | θ59 |
| t61 | θ60 | θ1 | ····· | θ58 | θ59 | θ60 | θ1 | ····· | θ58 | θ59 | θ60 | θ1 | ····· | θ60 | θ1 | ····· | θ58 | θ59 |
| t62 | θ59 | θ60 | ····· | θ57 | θ58 | θ59 | θ60 | ····· | θ57 | θ58 | θ59 | θ60 | ····· | θ59 | θ60 | ····· | θ57 | θ58 |
| t63 | θ58 | θ59 | ····· | θ56 | θ57 | θ58 | θ59 | ····· | θ56 | θ57 | θ58 | θ59 | ····· | θ58 | θ59 | ····· | θ56 | θ57 |
| ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ····· | ⋮ | ⋮ |
| t119 | θ2 | θ3 | ····· | θ60 | θ1 | θ2 | θ3 | ····· | θ60 | θ1 | θ2 | θ3 | ····· | θ2 | θ3 | ····· | θ60 | θ1 |
| t120 | θ1 | θ2 | ····· | θ59 | θ60 | θ1 | θ2 | ····· | θ59 | θ60 | θ1 | θ2 | ····· | θ1 | θ2 | ····· | θ59 | θ60 |
| t121 | θ1 | θ2 | ····· | θ59 | θ60 | θ1 | θ2 | ····· | θ59 | θ60 | θ1 | θ2 | ····· | θ1 | θ2 | ····· | θ59 | θ60 |
| t122 | θ2 | θ3 | ····· | θ60 | θ1 | θ2 | θ3 | ····· | θ60 | θ1 | θ2 | θ3 | ····· | θ2 | θ3 | ····· | θ60 | θ1 |
| t123 | θ3 | θ4 | ····· | θ1 | θ2 | θ3 | θ4 | ····· | θ1 | θ2 | θ3 | θ4 | ····· | θ3 | θ4 | ····· | θ1 | θ2 |
| ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ····· | ⋮ | ⋮ |
| t179 | θ59 | θ60 | ····· | θ57 | θ58 | θ59 | θ60 | ····· | θ57 | θ58 | θ59 | θ60 | ····· | θ59 | θ60 | ····· | θ57 | θ58 |
| t180 | θ60 | θ1 | ····· | θ58 | θ59 | θ60 | θ1 | ····· | θ58 | θ59 | θ60 | θ1 | ····· | θ60 | θ1 | ····· | θ58 | θ59 |
| ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ····· | ⋮ | ⋮ |
| t3541 | θ60 | θ1 | ····· | θ58 | θ59 | θ60 | θ1 | ····· | θ58 | θ59 | θ60 | θ1 | ····· | θ60 | θ1 | ····· | θ58 | θ59 |
| t3542 | θ59 | θ60 | ····· | θ57 | θ58 | θ59 | θ60 | ····· | θ57 | θ58 | θ59 | θ60 | ····· | θ59 | θ60 | ····· | θ57 | θ58 |
| t3543 | θ58 | θ59 | ····· | θ56 | θ57 | θ58 | θ59 | ····· | θ56 | θ57 | θ58 | θ59 | ····· | θ58 | θ59 | ····· | θ56 | θ57 |
| ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ⋮ | ⋮ | ····· | ⋮ | ⋮ | ····· | ⋮ | ⋮ |
| t3599 | θ2 | θ3 | ····· | θ60 | θ1 | θ2 | θ3 | ····· | θ60 | θ1 | θ2 | θ3 | ····· | θ2 | θ3 | ····· | θ60 | θ1 |
| t3600 | θ1 | θ2 | ····· | θ59 | θ60 | θ1 | θ2 | ····· | θ59 | θ60 | θ1 | θ2 | ····· | θ1 | θ2 | ····· | θ59 | θ60 |

FIG. 63

0056528-050400

FIG. 64A

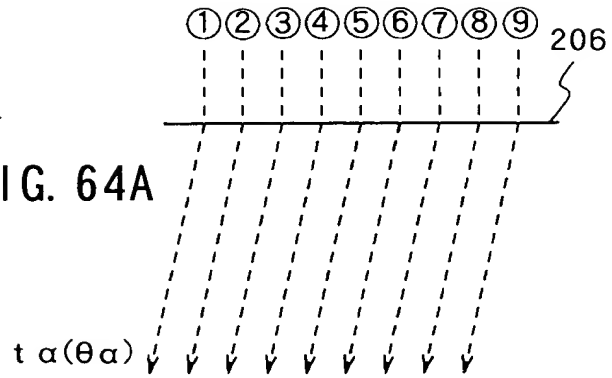



FIG. 64B

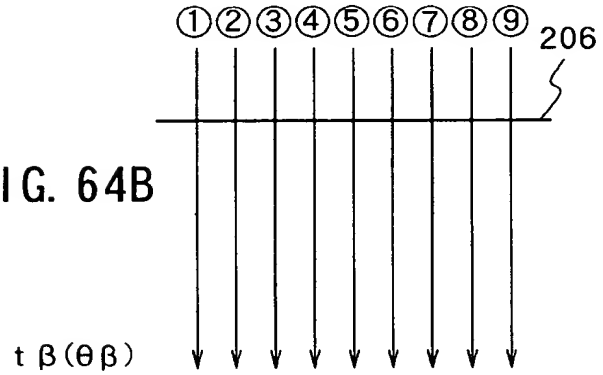



FIG. 64C

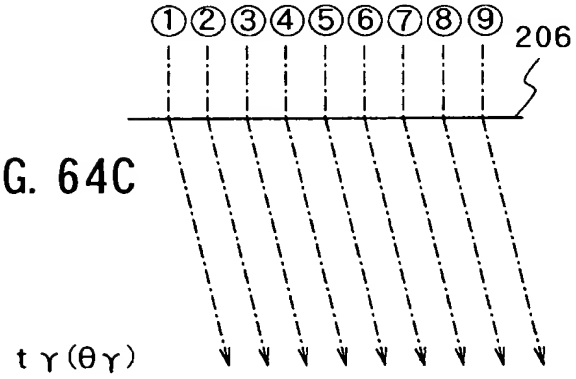



FIG. 64D

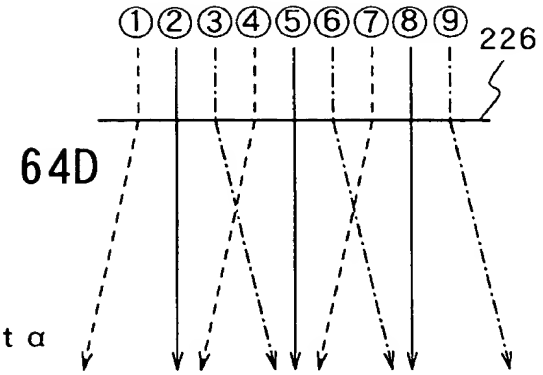



FIG. 64E

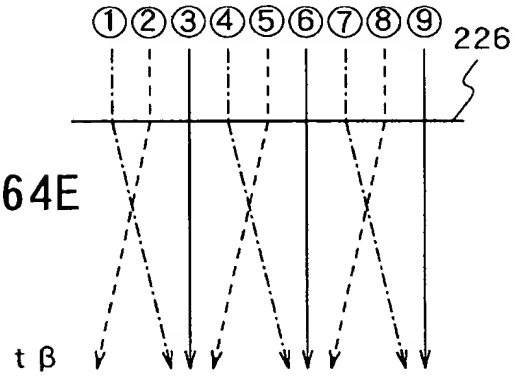



FIG. 64F

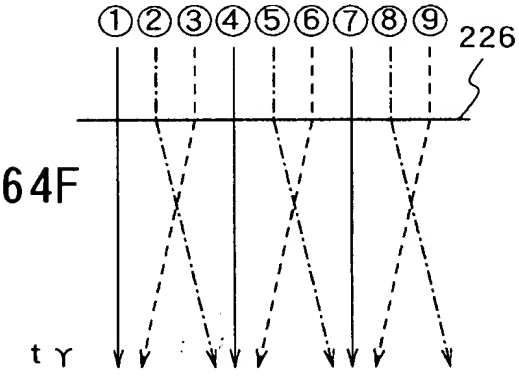


FIG. 65

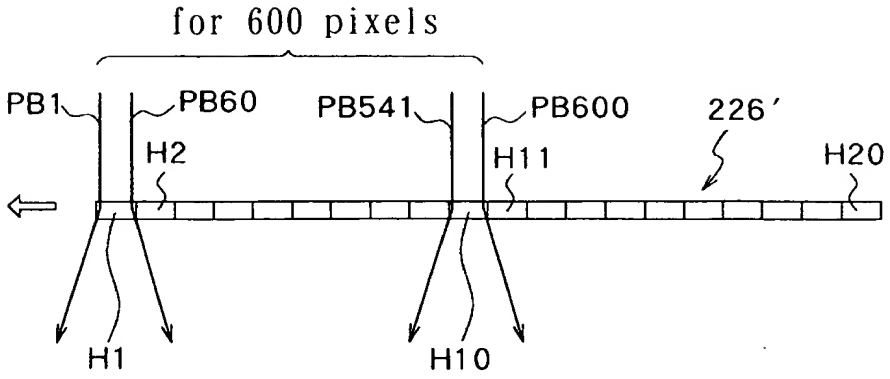



FIG. 66

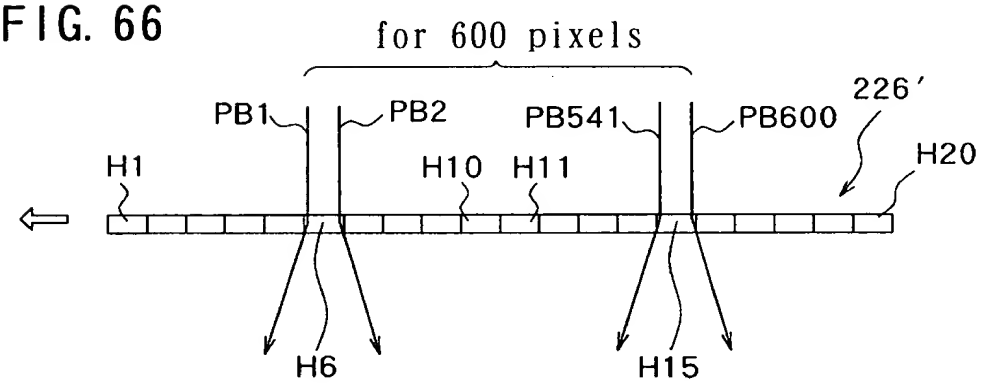
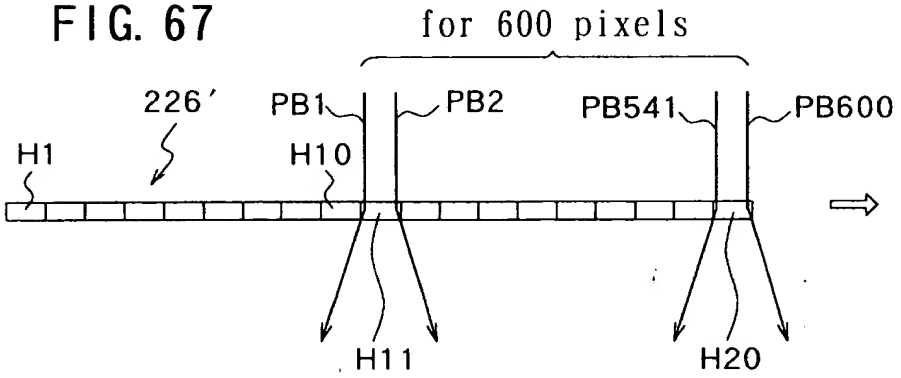



FIG. 67




09646228 - 020702

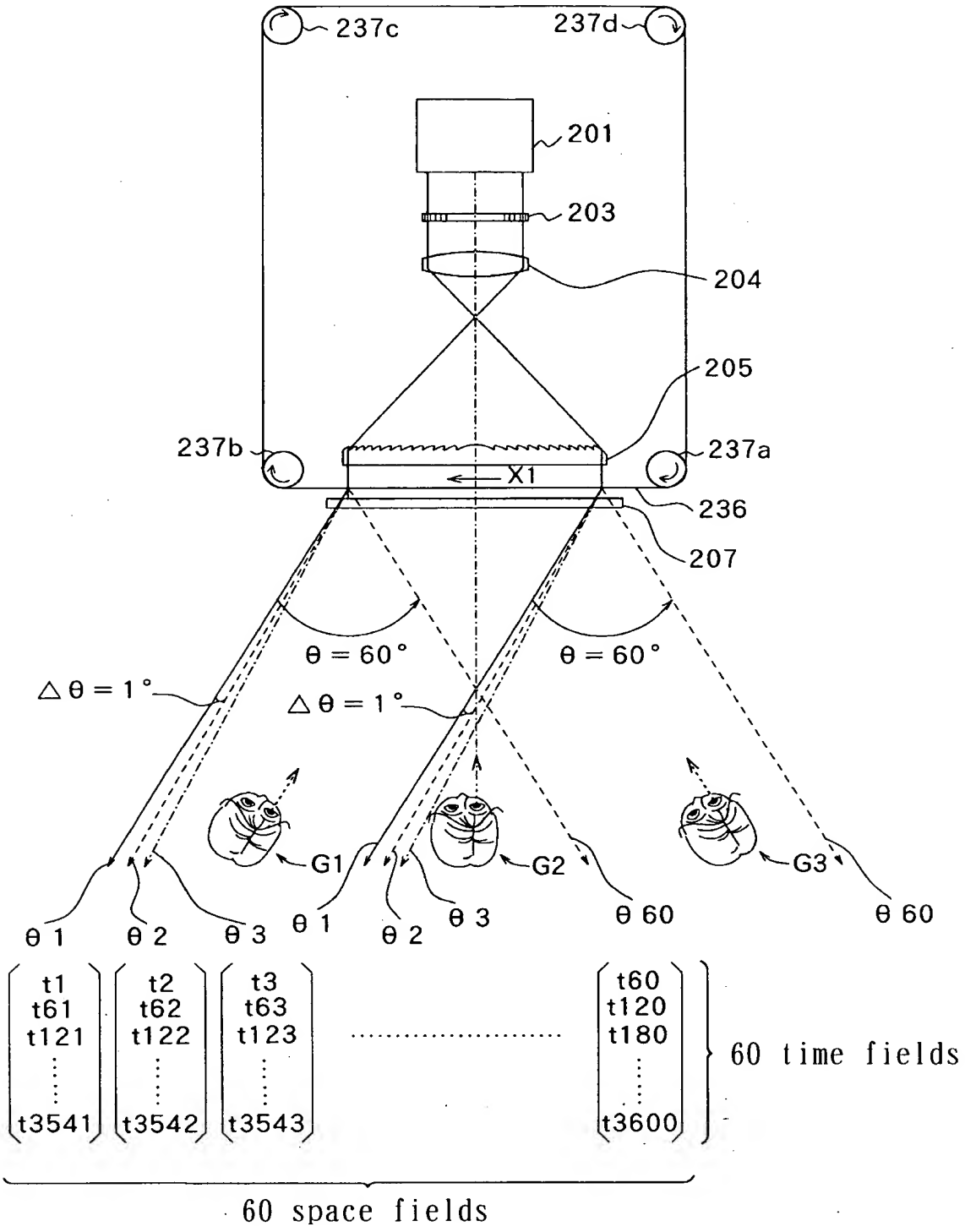

237c
237d
201
203
204
205
237b
237a
X1
236
207
θ = 60°
θ = 60°
△θ = 1°
△θ = 1°
G1
G2
G3
θ 1
θ 2
θ 3
θ 1
θ 2
θ 3
θ 60
θ 60
t1
t61
t121
t3541
t2
t62
t122
t3542
t3
t63
t123
t3543
t60
t120
t180
t3600
60 time fields
60 space fields

FIG. 68

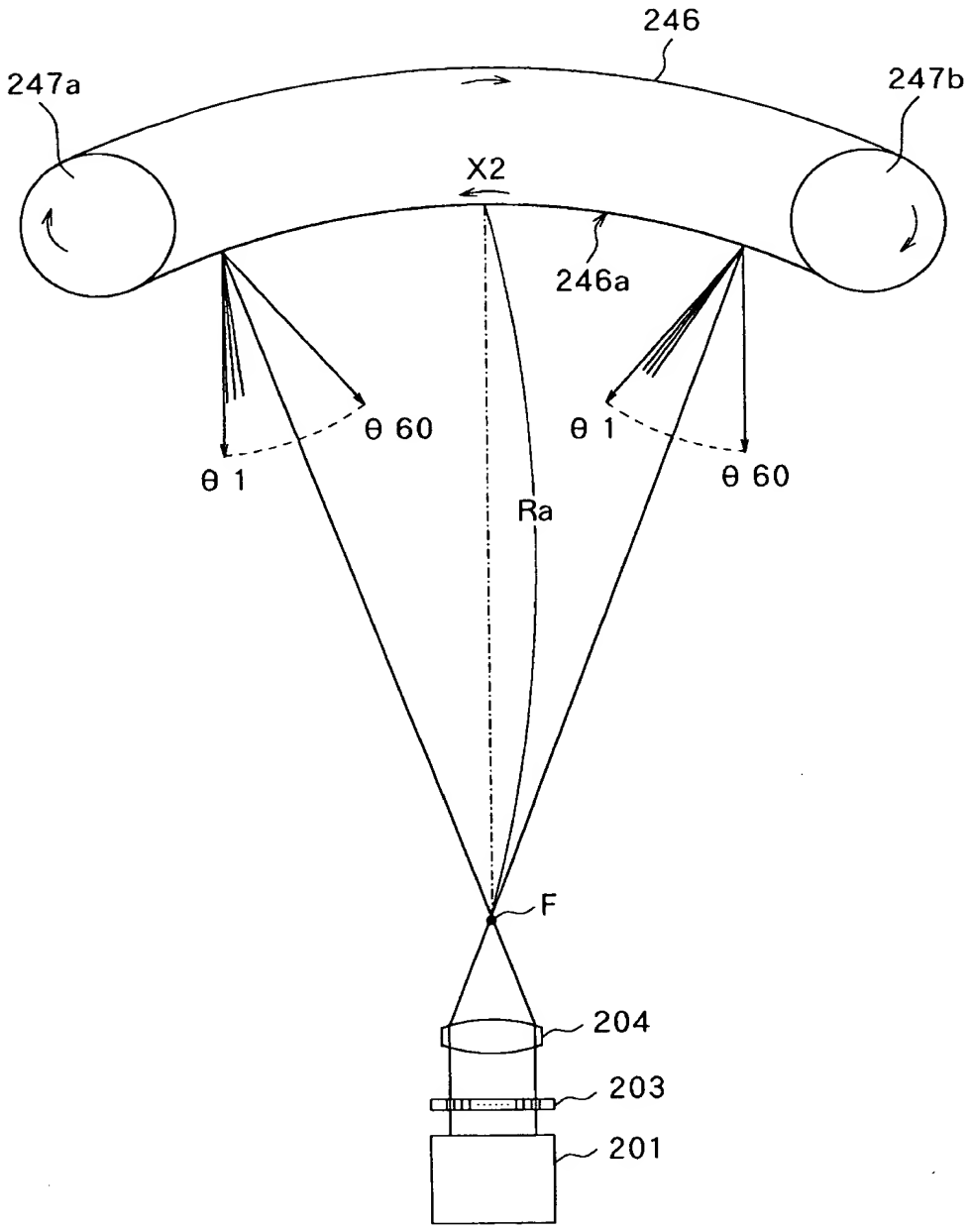



FIG. 69

08646228 - 081400

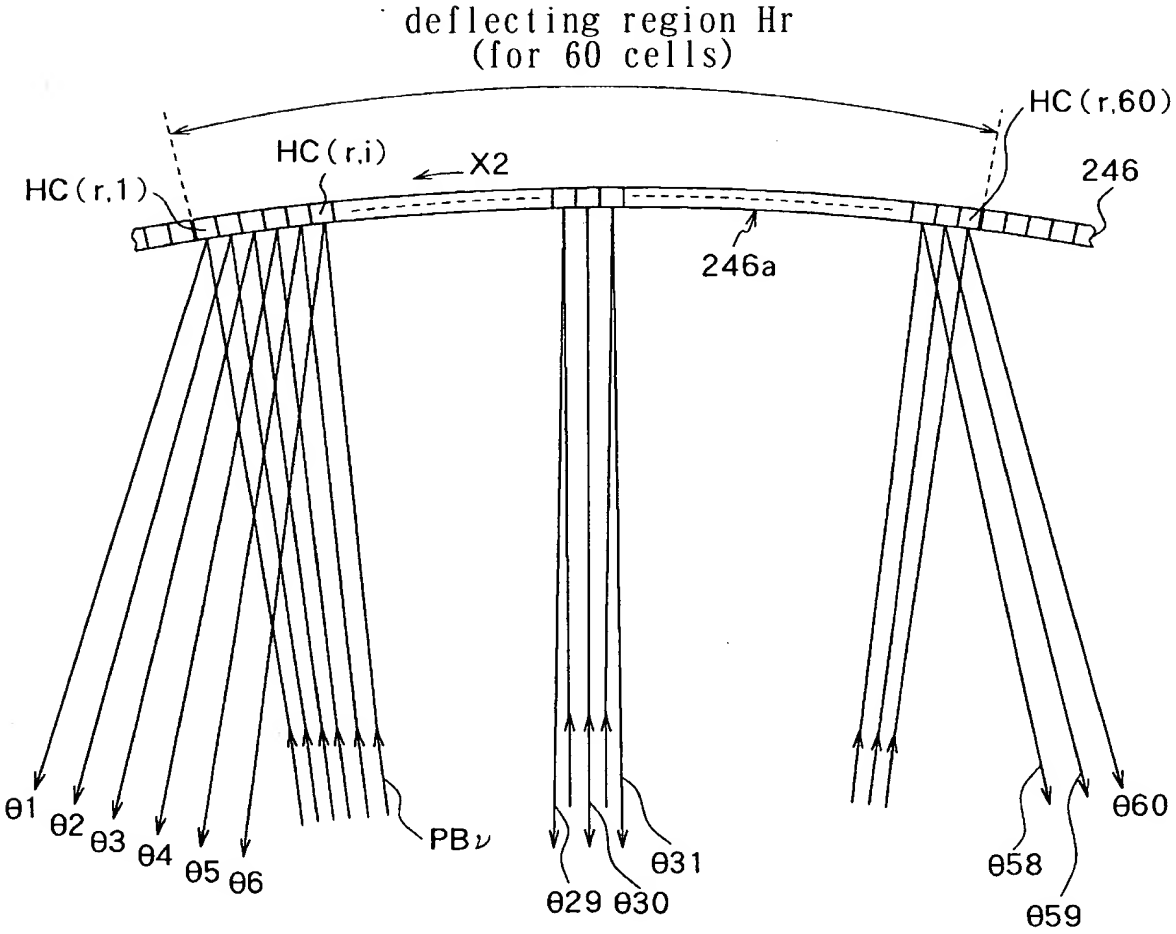



FIG. 70

09646228-030401

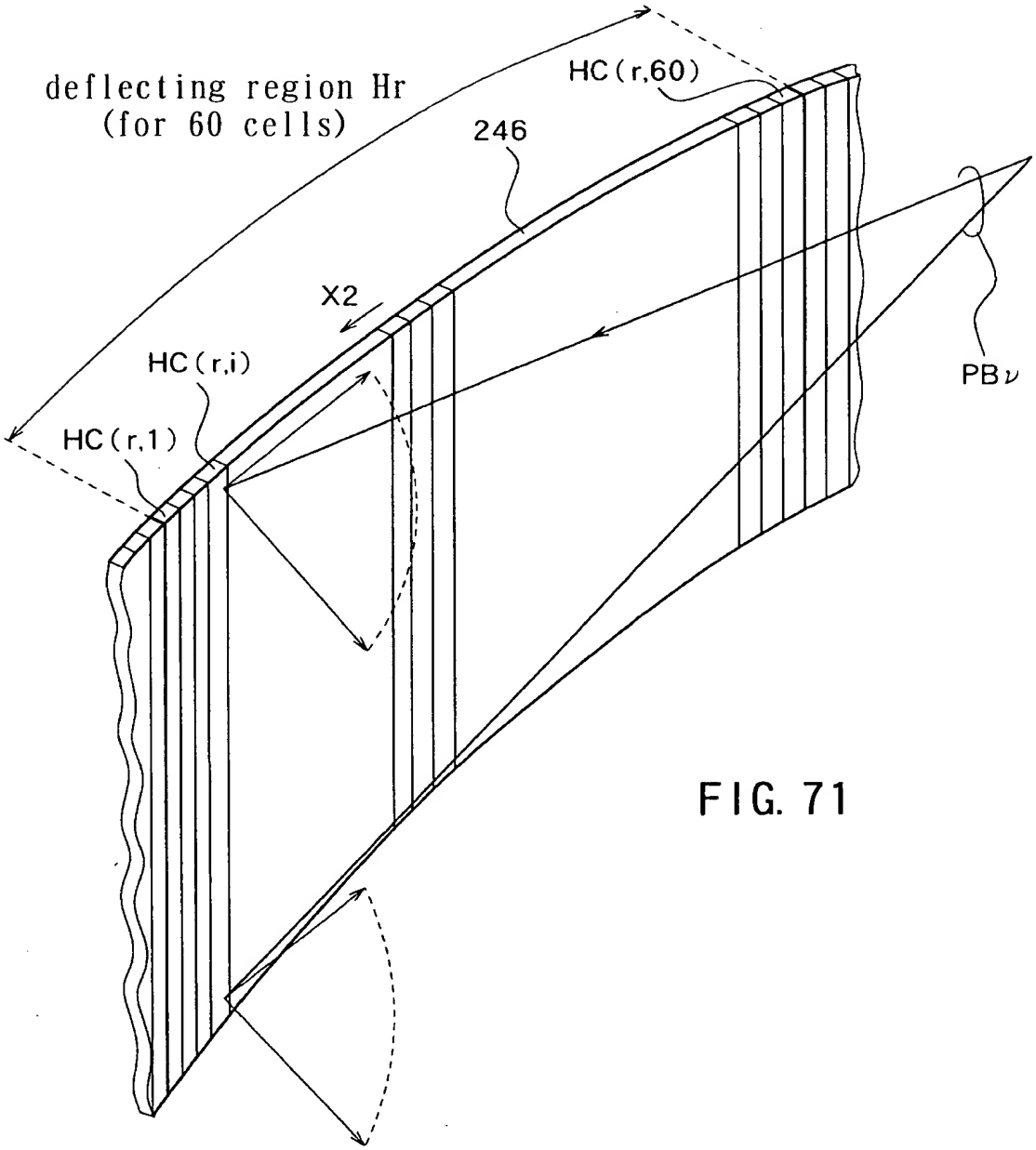



FIG. 71

09646228 - 093400

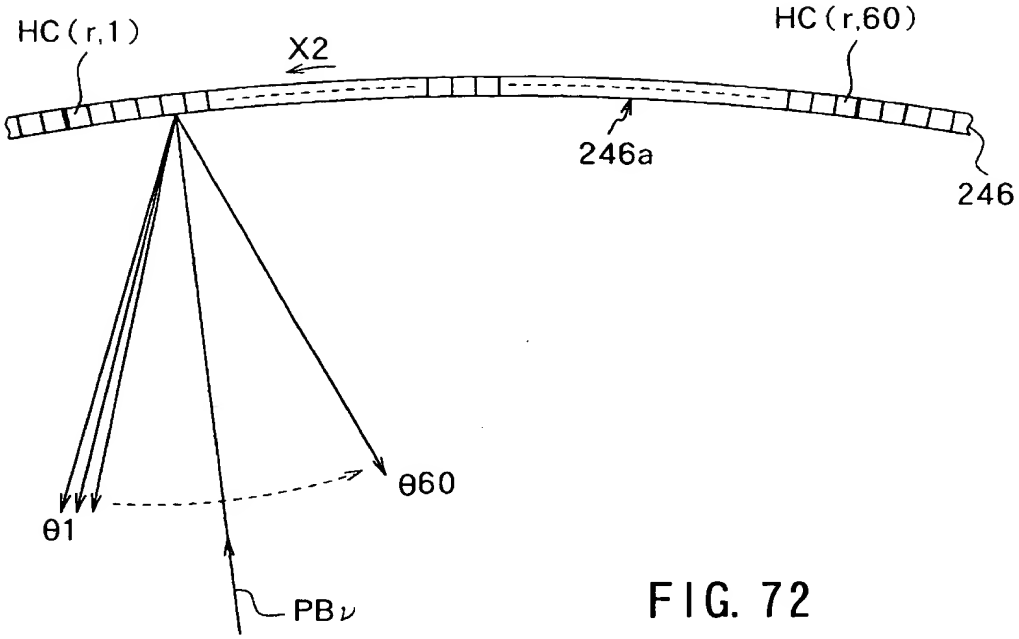



FIG. 72

09646228 - 091600

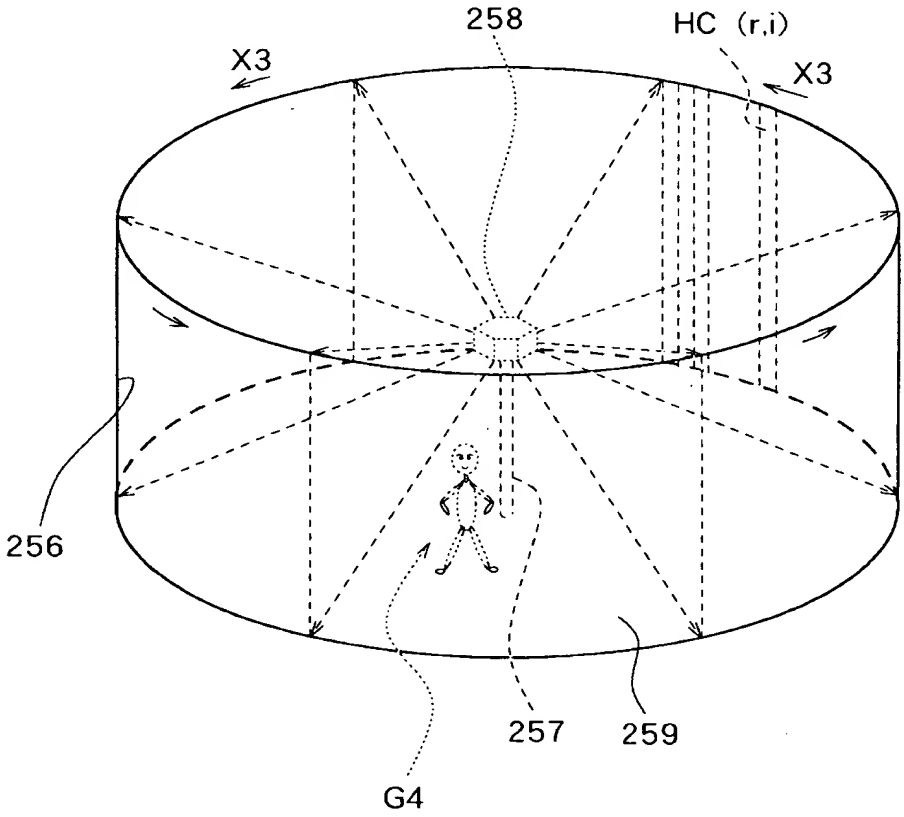



FIG. 73

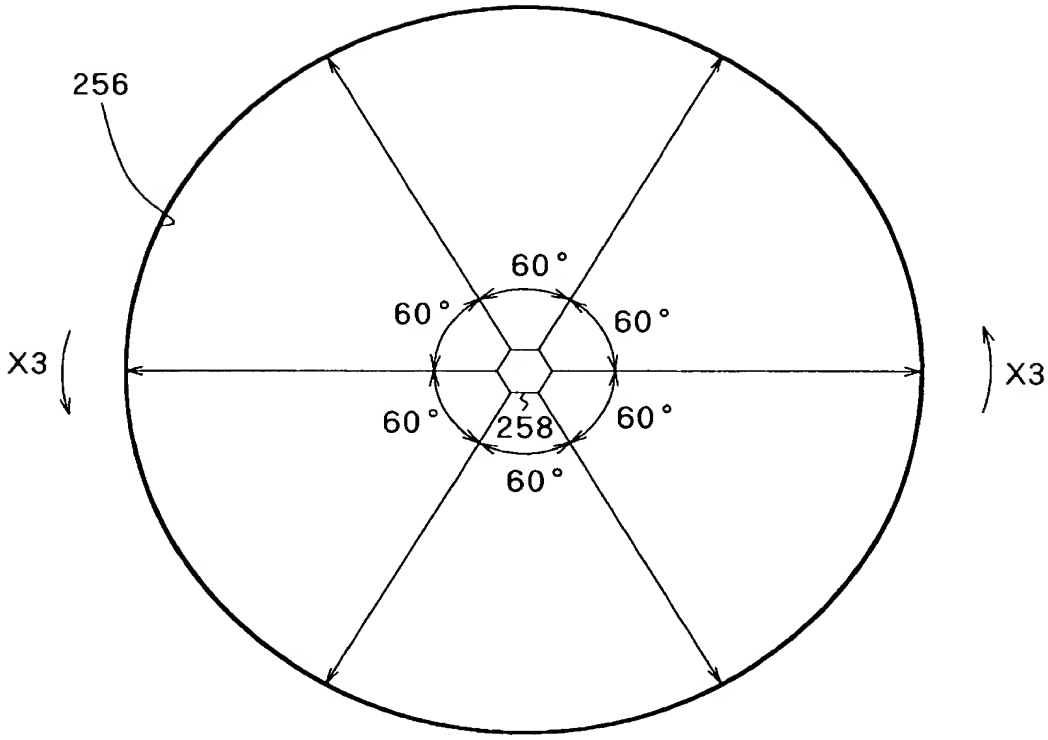



FIG. 74

09646228 - 092600

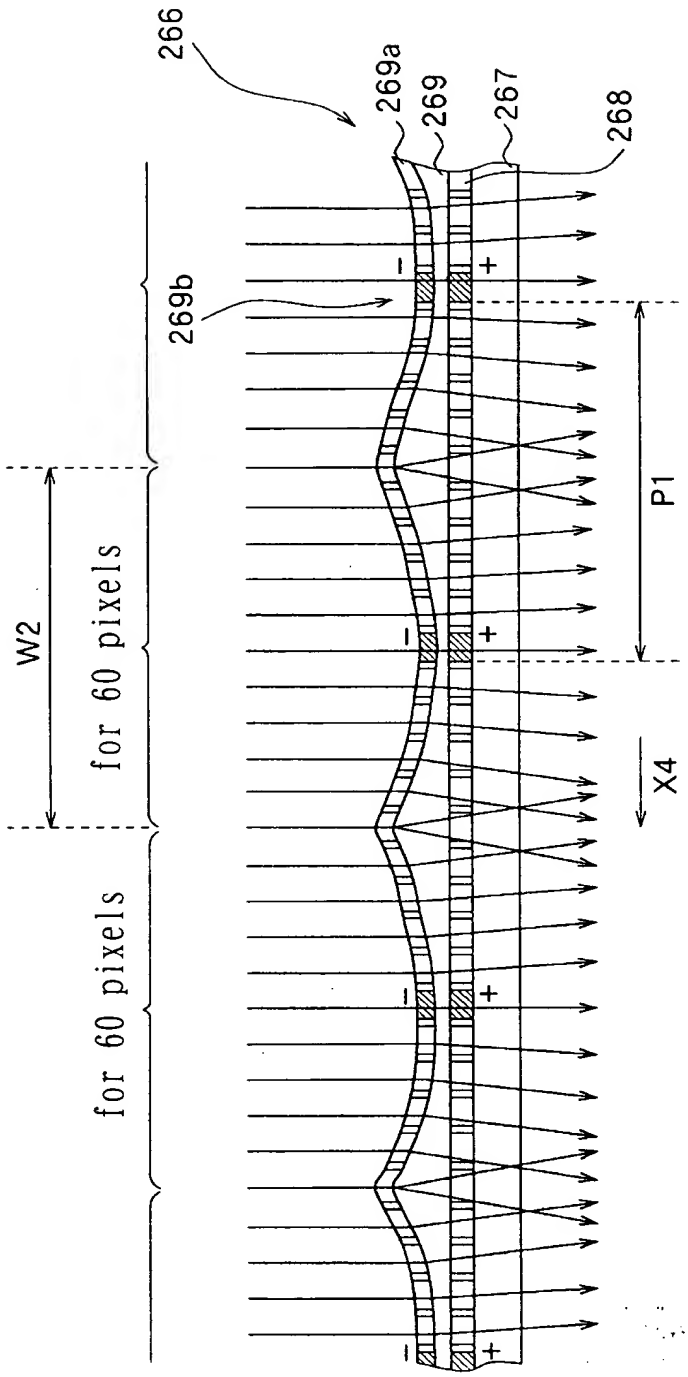



FIG. 75

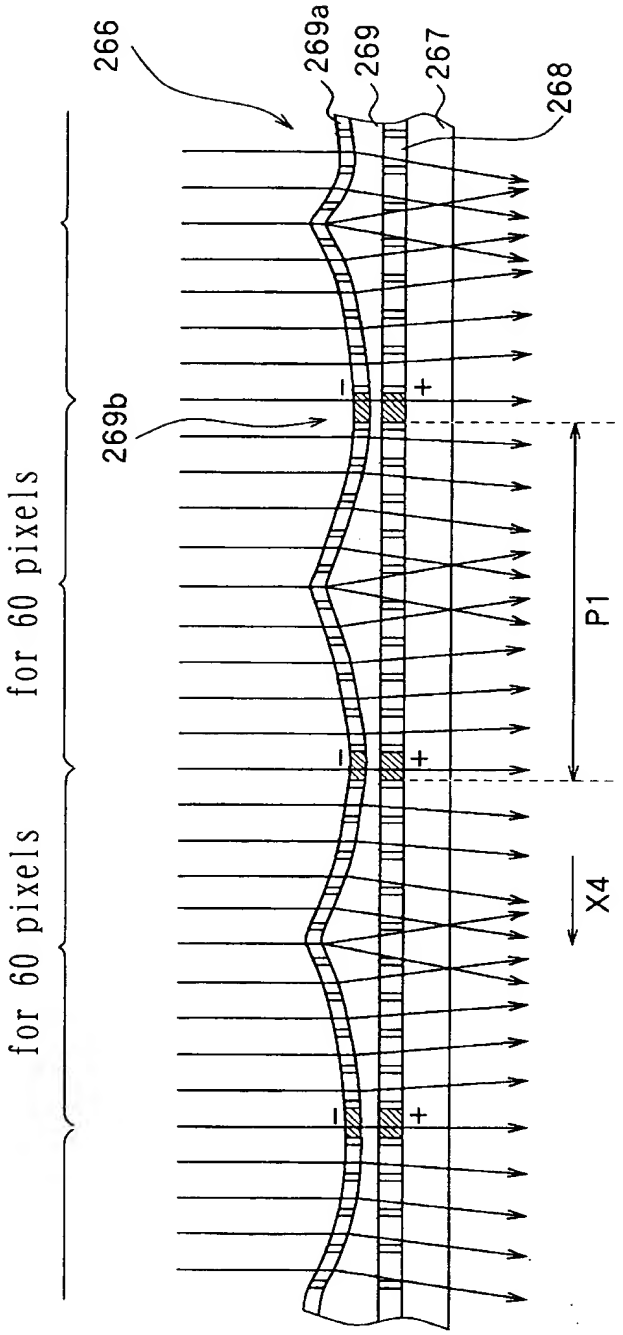



FIG. 76

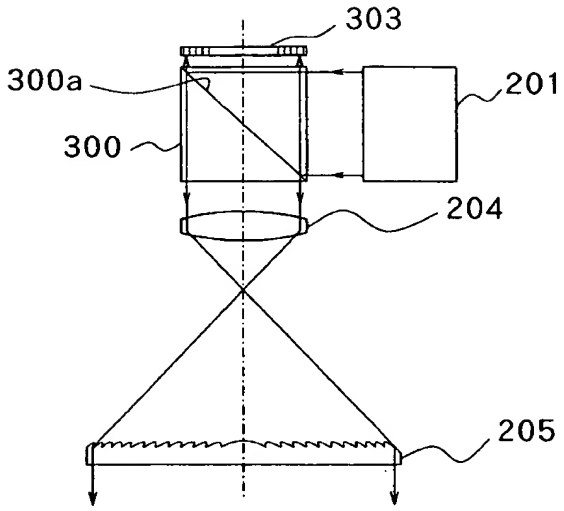



FIG. 77

Copy provided by USPTO from the PIRS Image Database on 05-23-2006

0054628 - 0054400

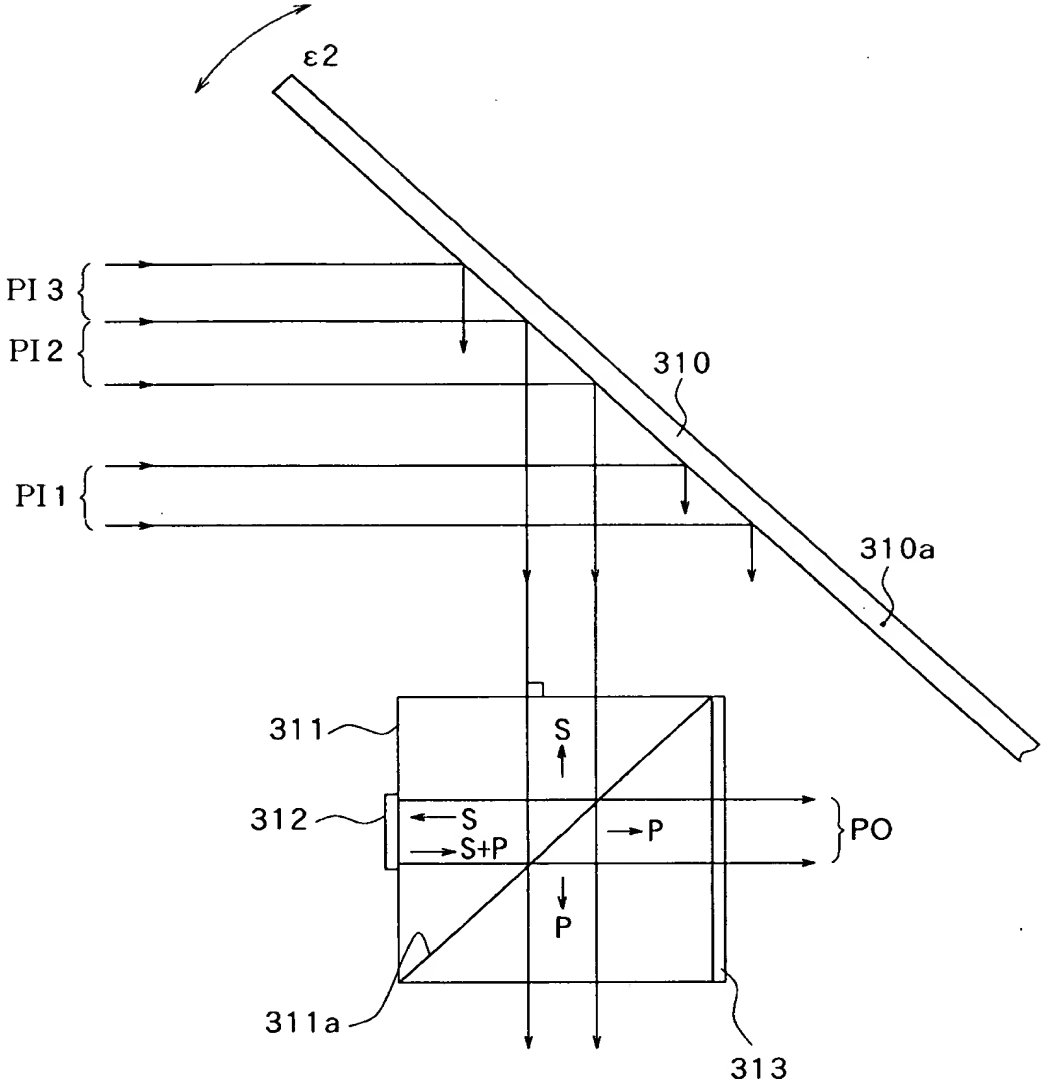



FIG. 78

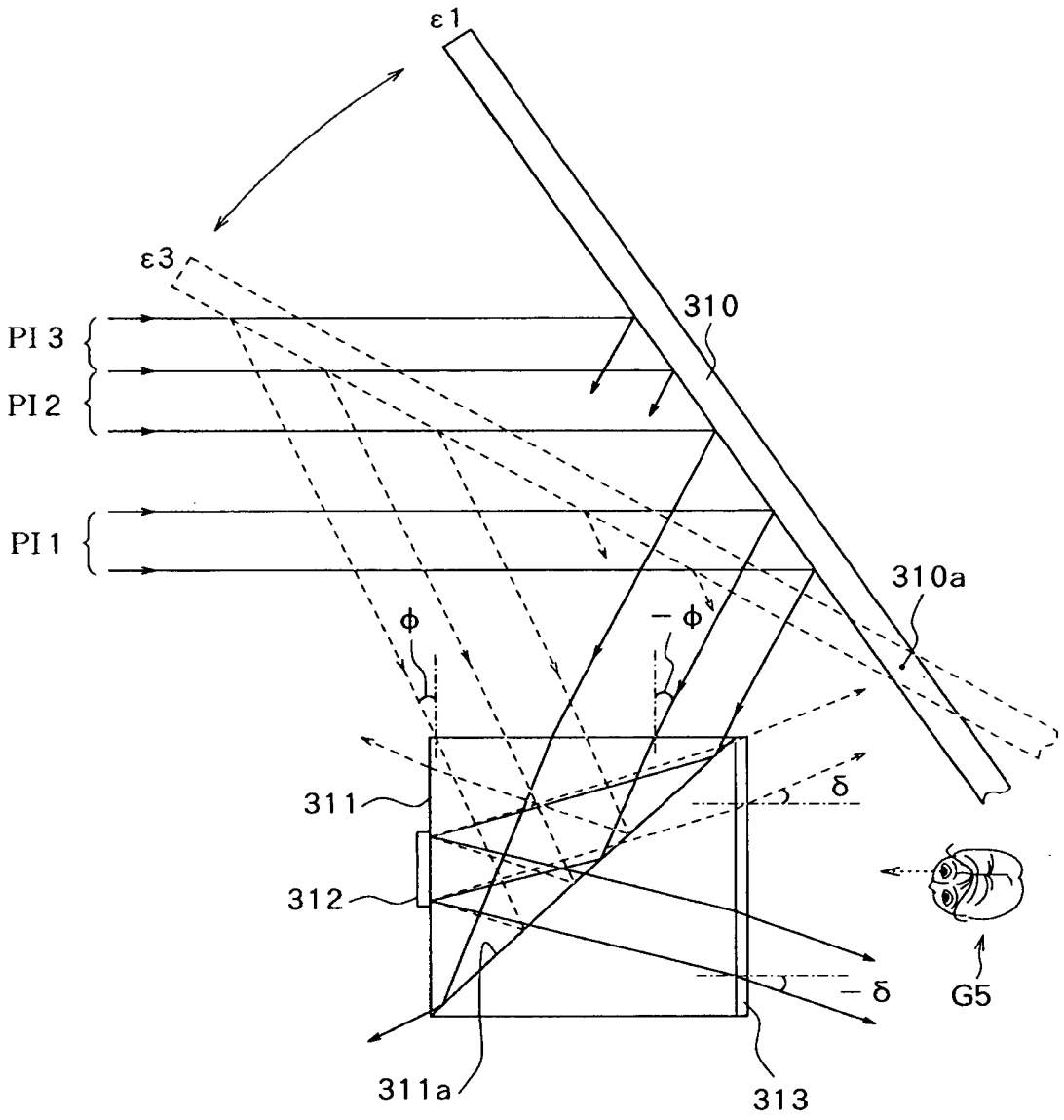



FIG. 79

0646228

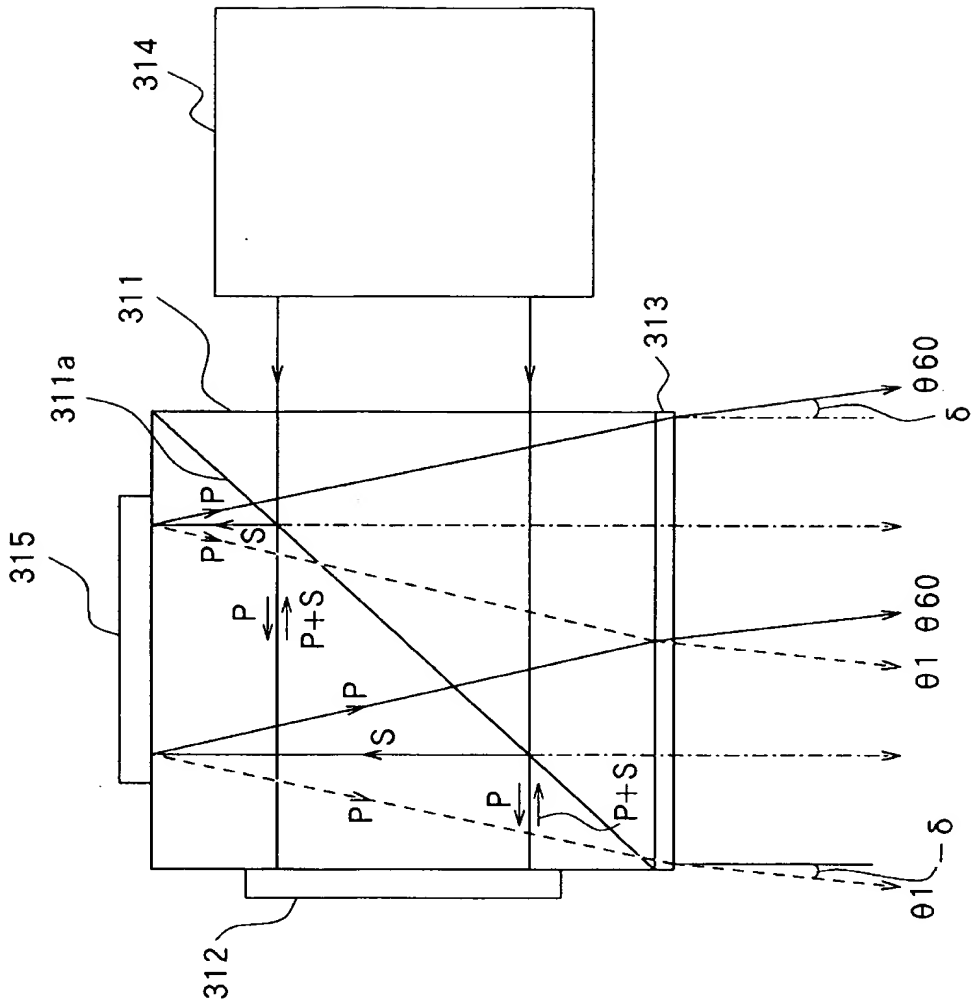



FIG. 80

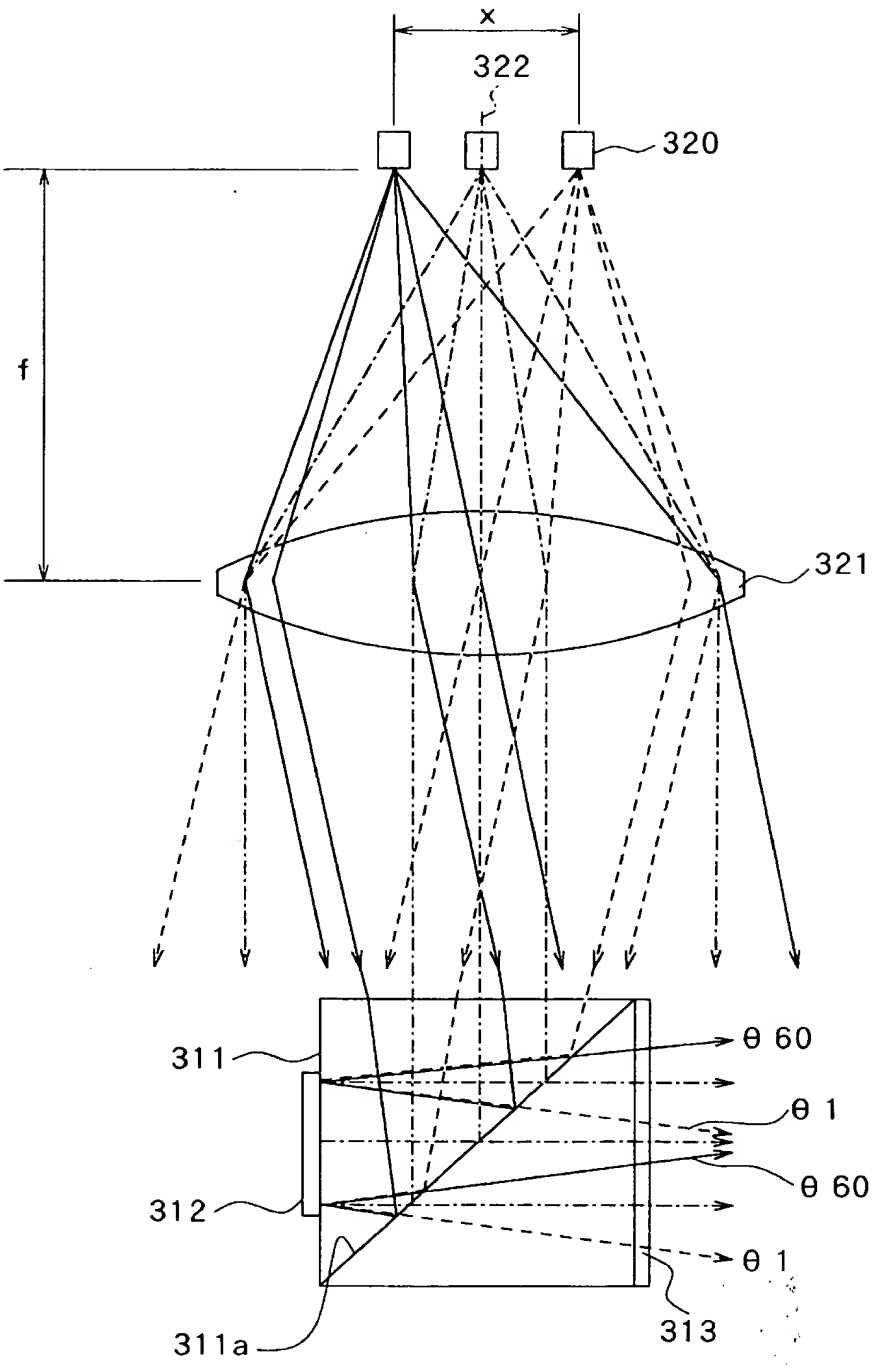



FIG. 81

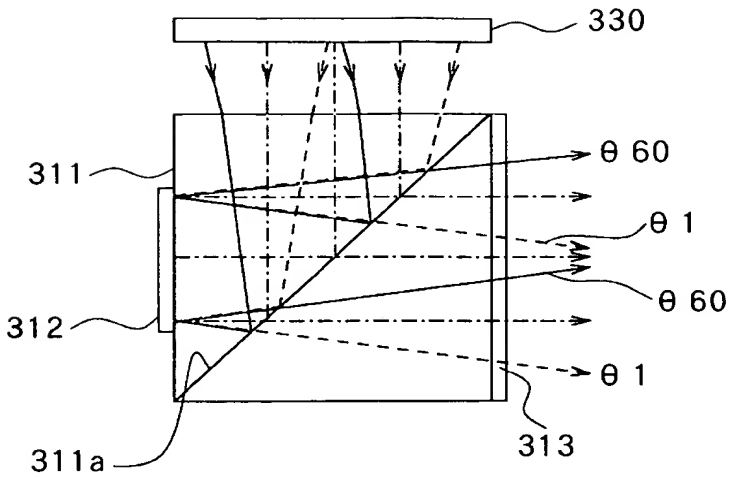



FIG. 82

D06F6N2B-06T400

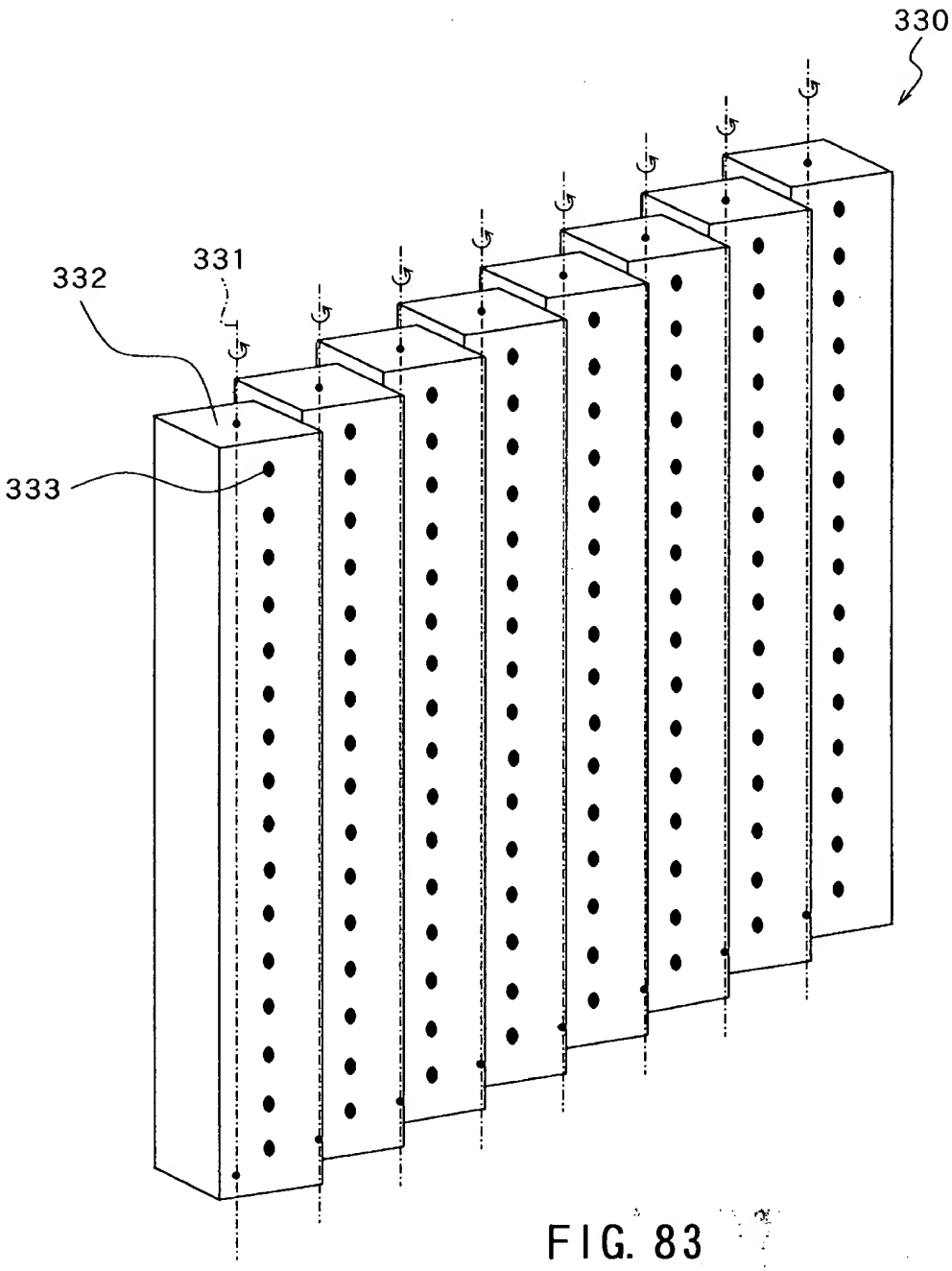



FIG. 83

09646228 - 091400

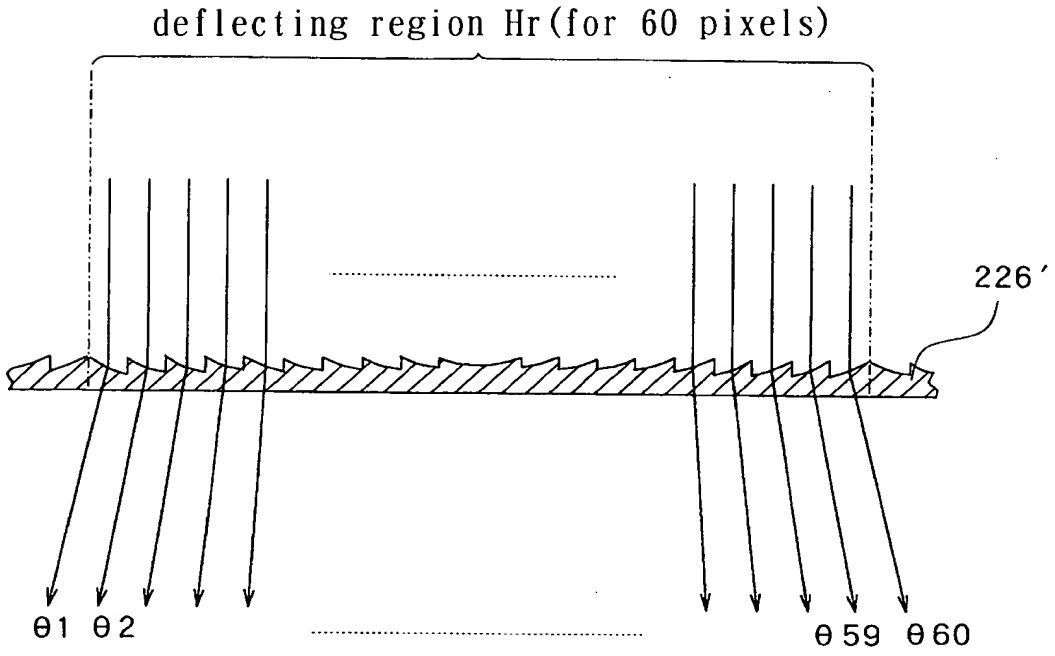



FIG. 84

09646228 - 092600

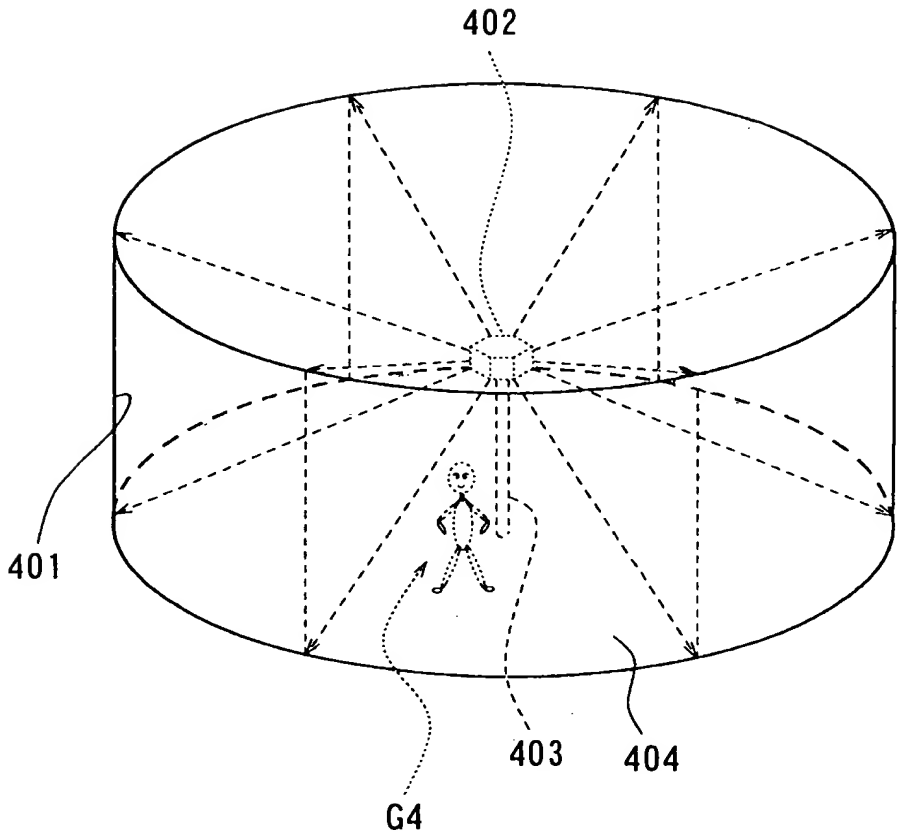



FIG. 85

JP0846646228

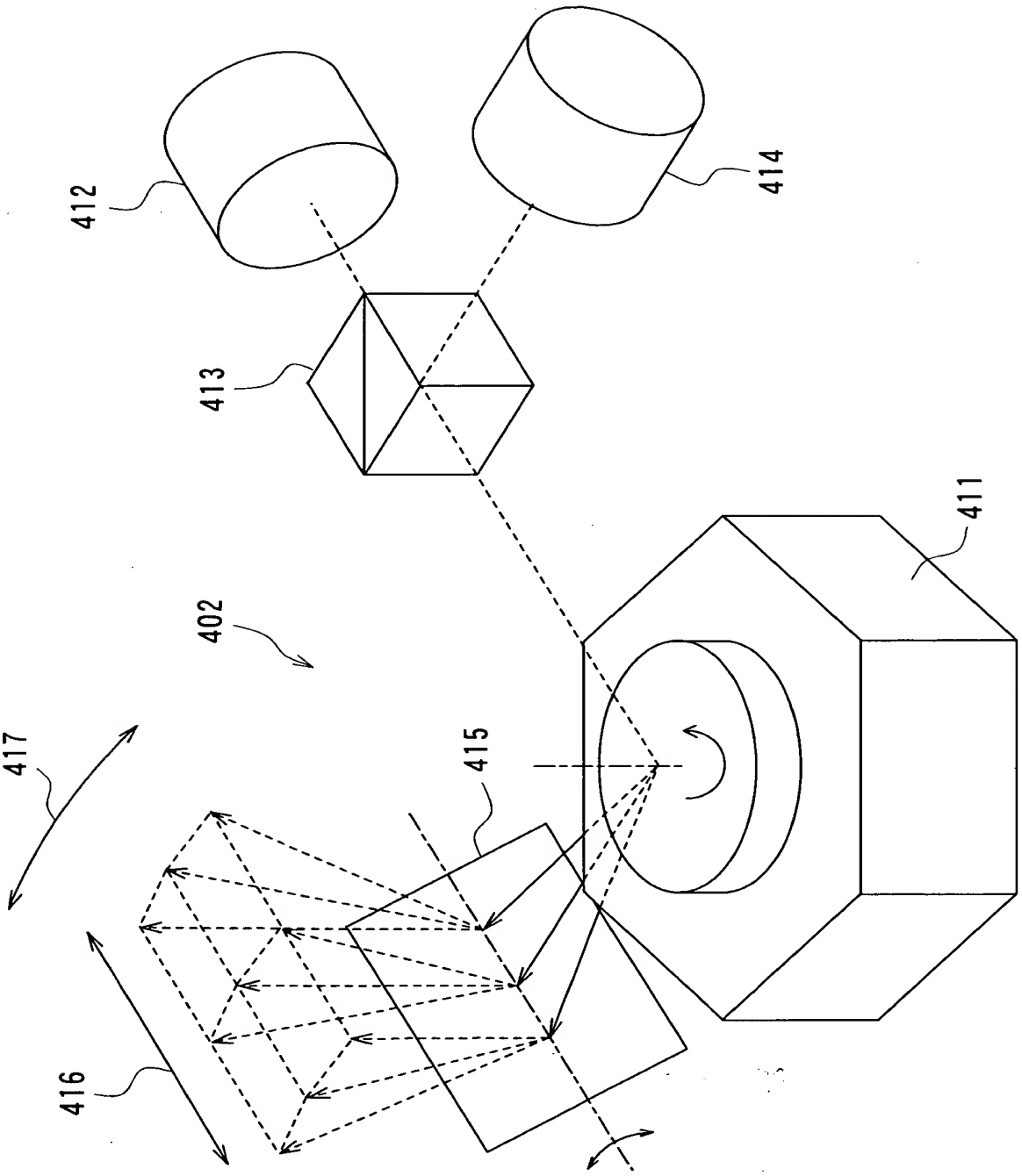



FIG. 86

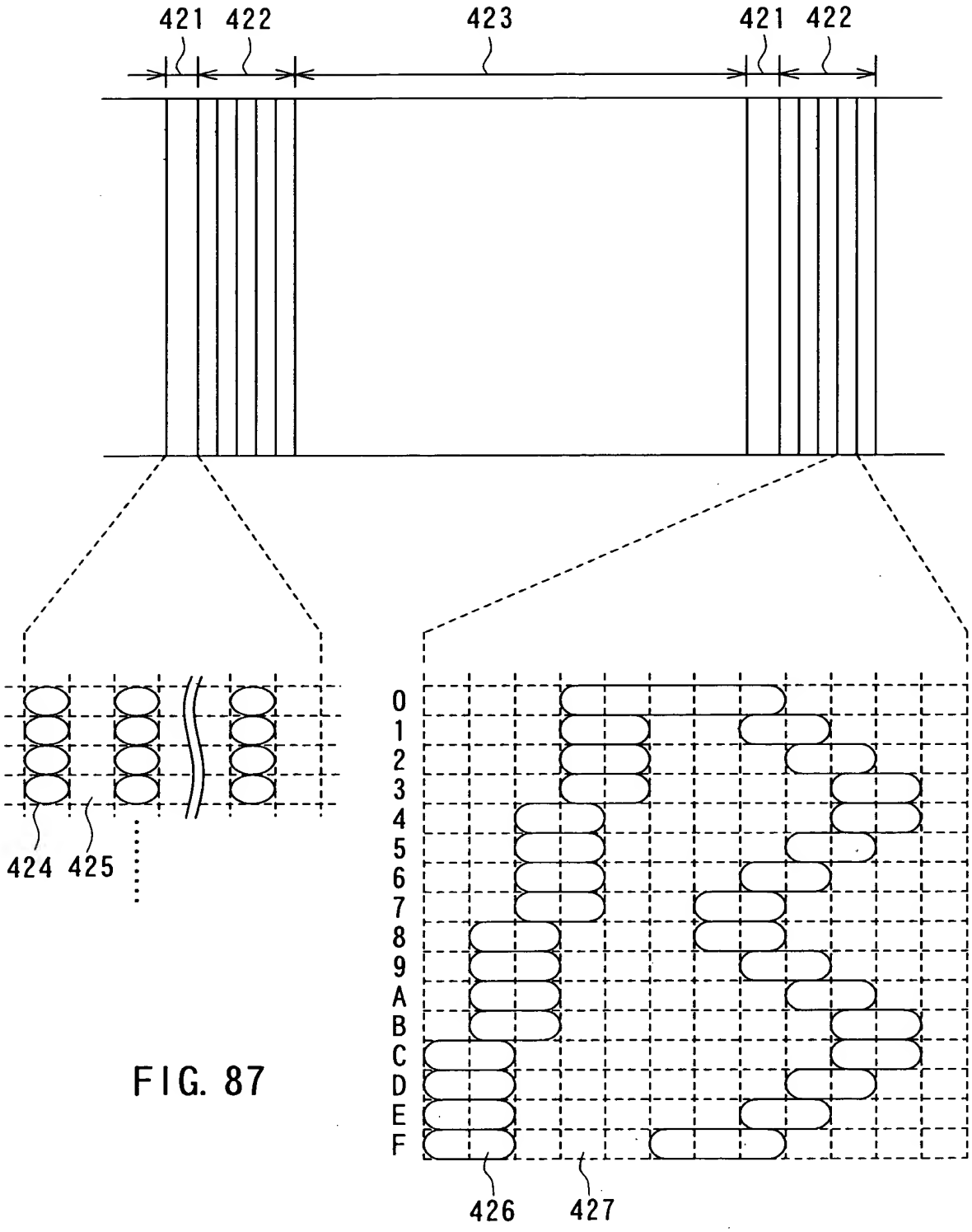



FIG. 87

09646228 - 090502

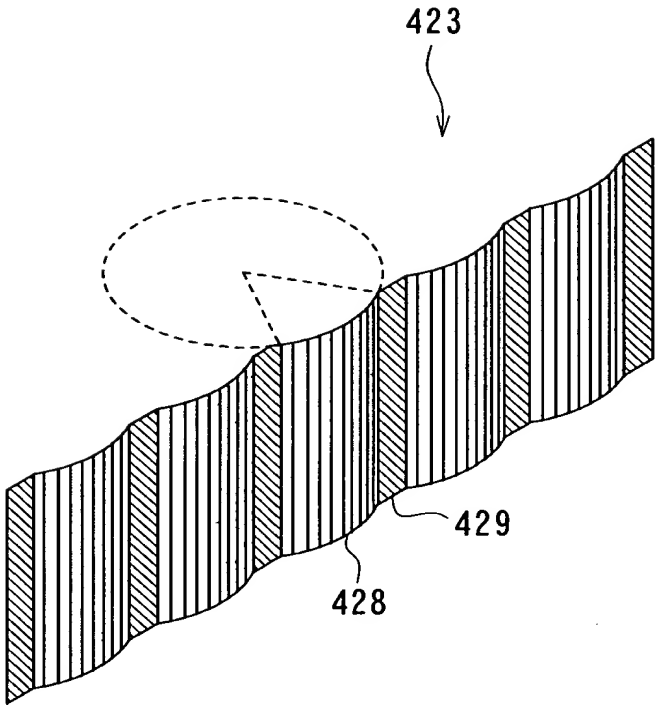



FIG. 88

09646228 - 090202

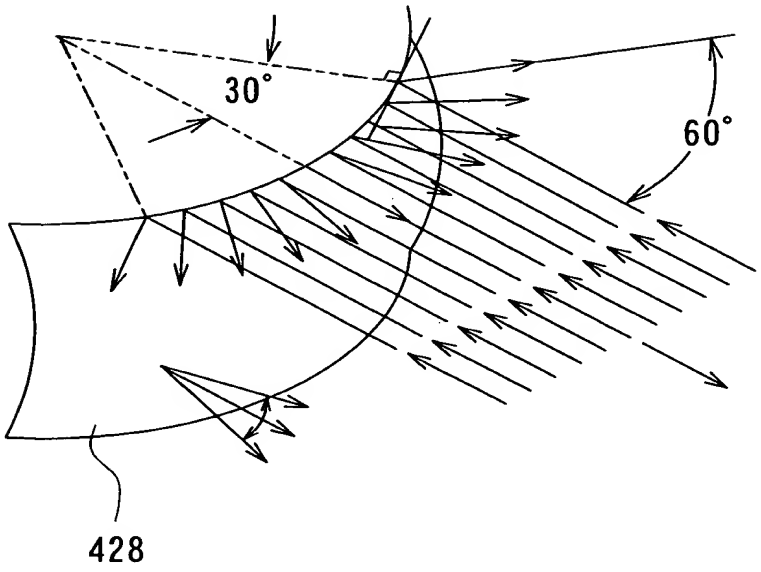



FIG. 89

09646228 - 031400

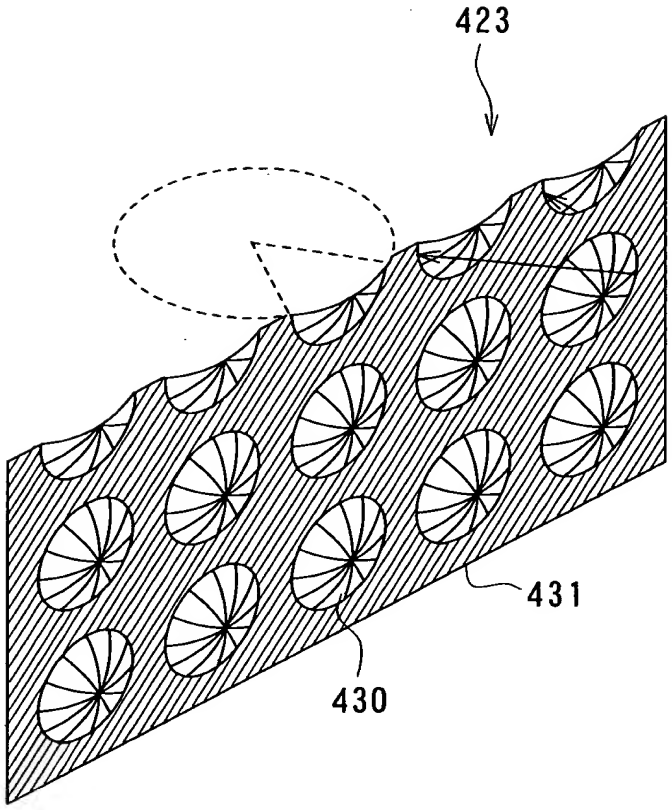



FIG. 90

0046228-090496

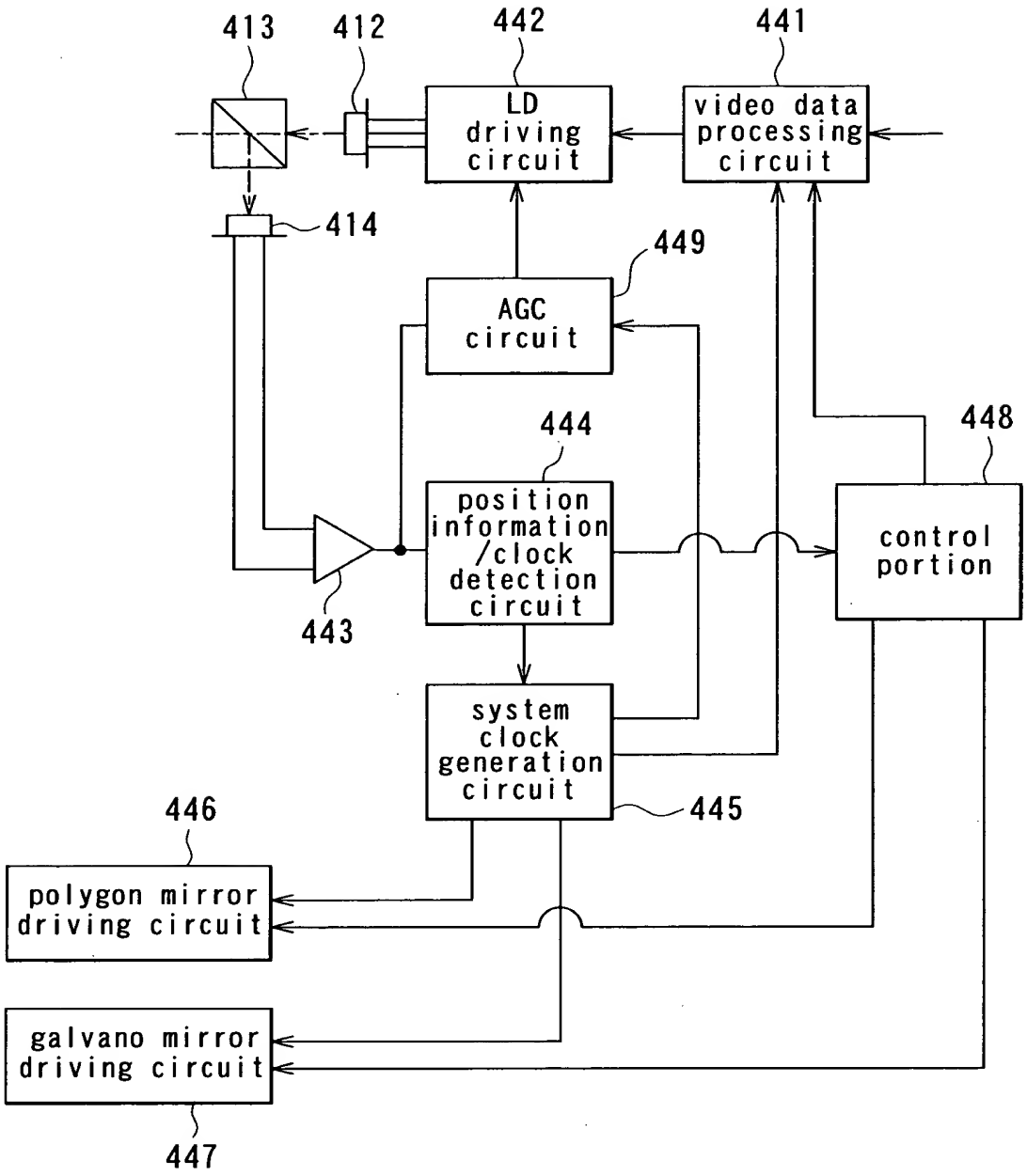



FIG. 91

US 2009/0046400 A1

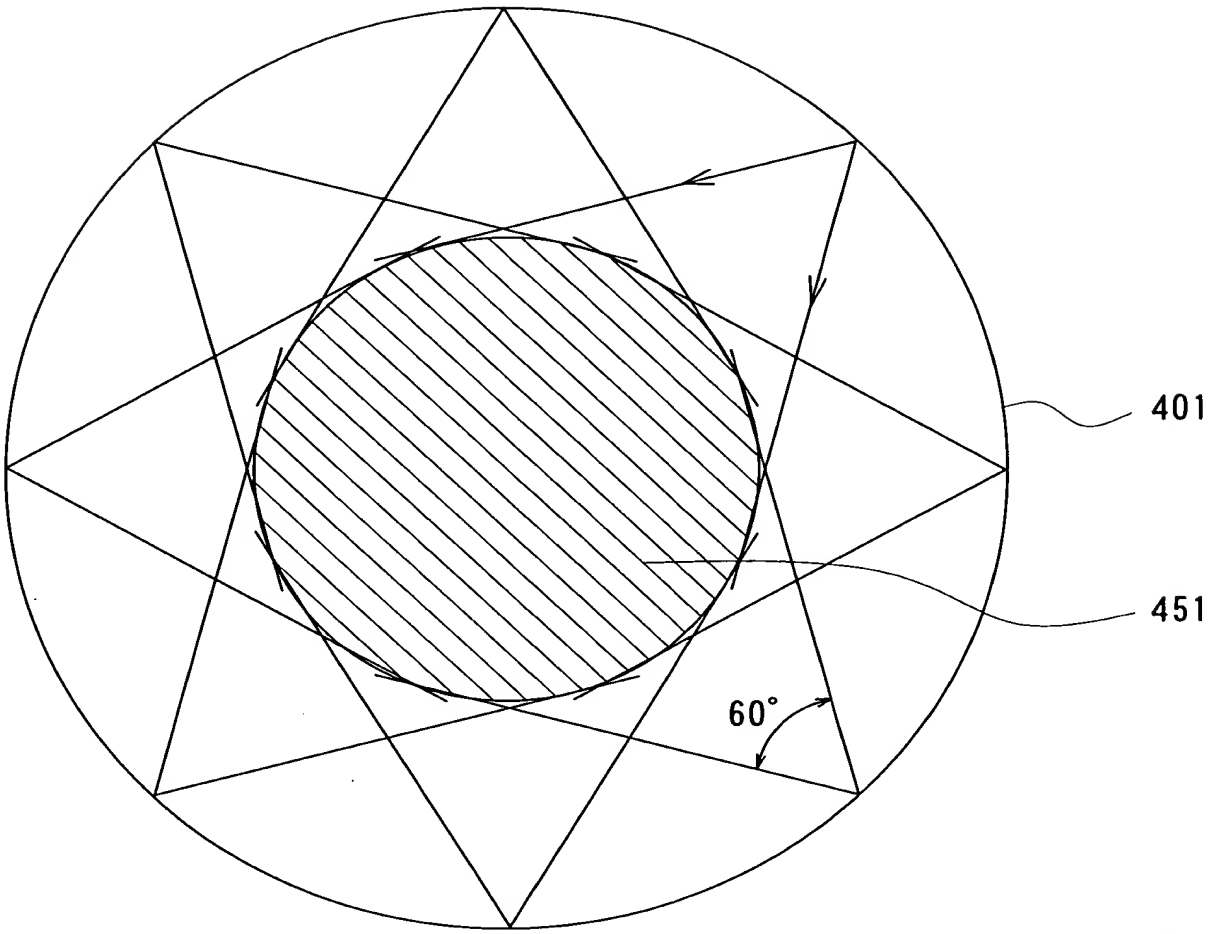



FIG. 92

Doc-Pat-Sys-Ltd

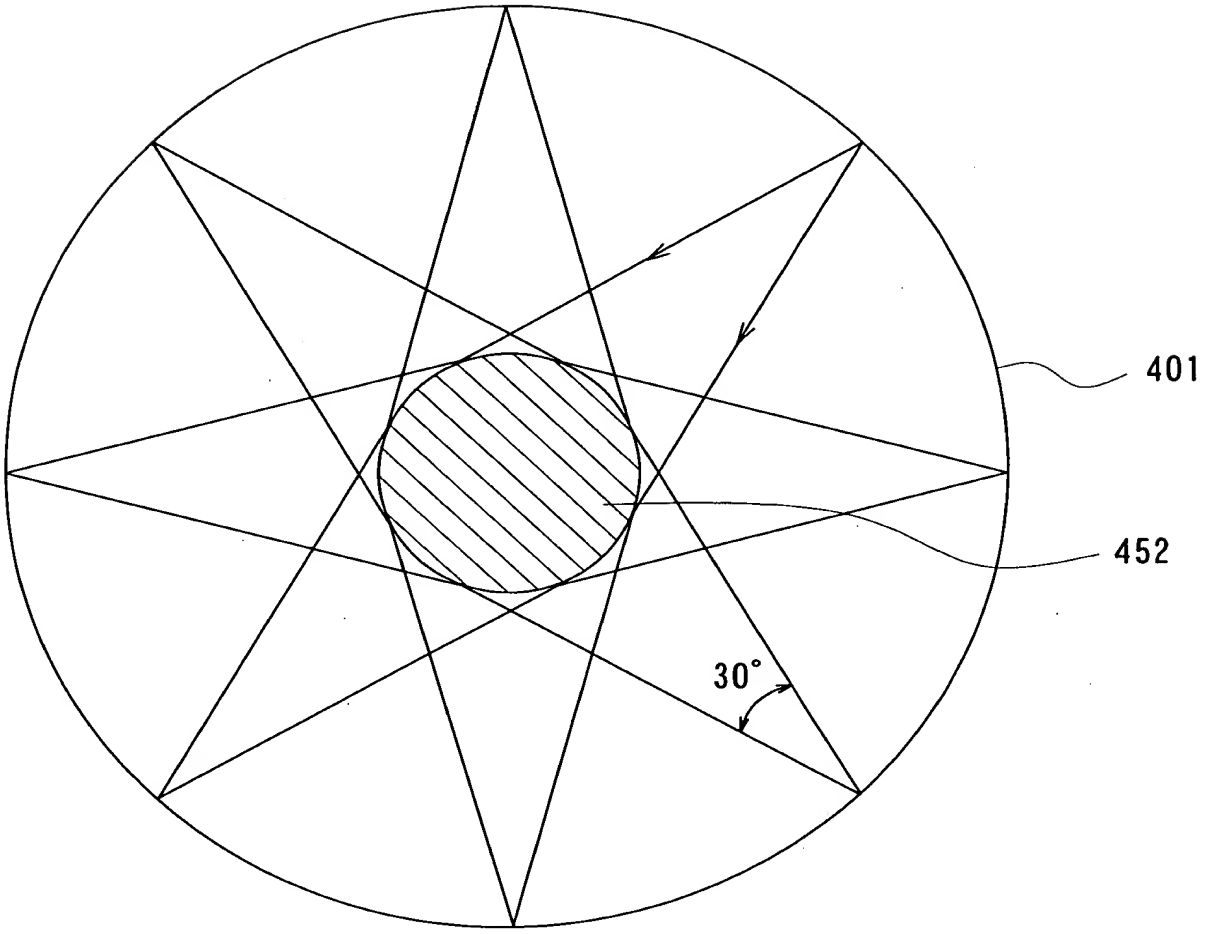



FIG. 93

09646228 - 091400

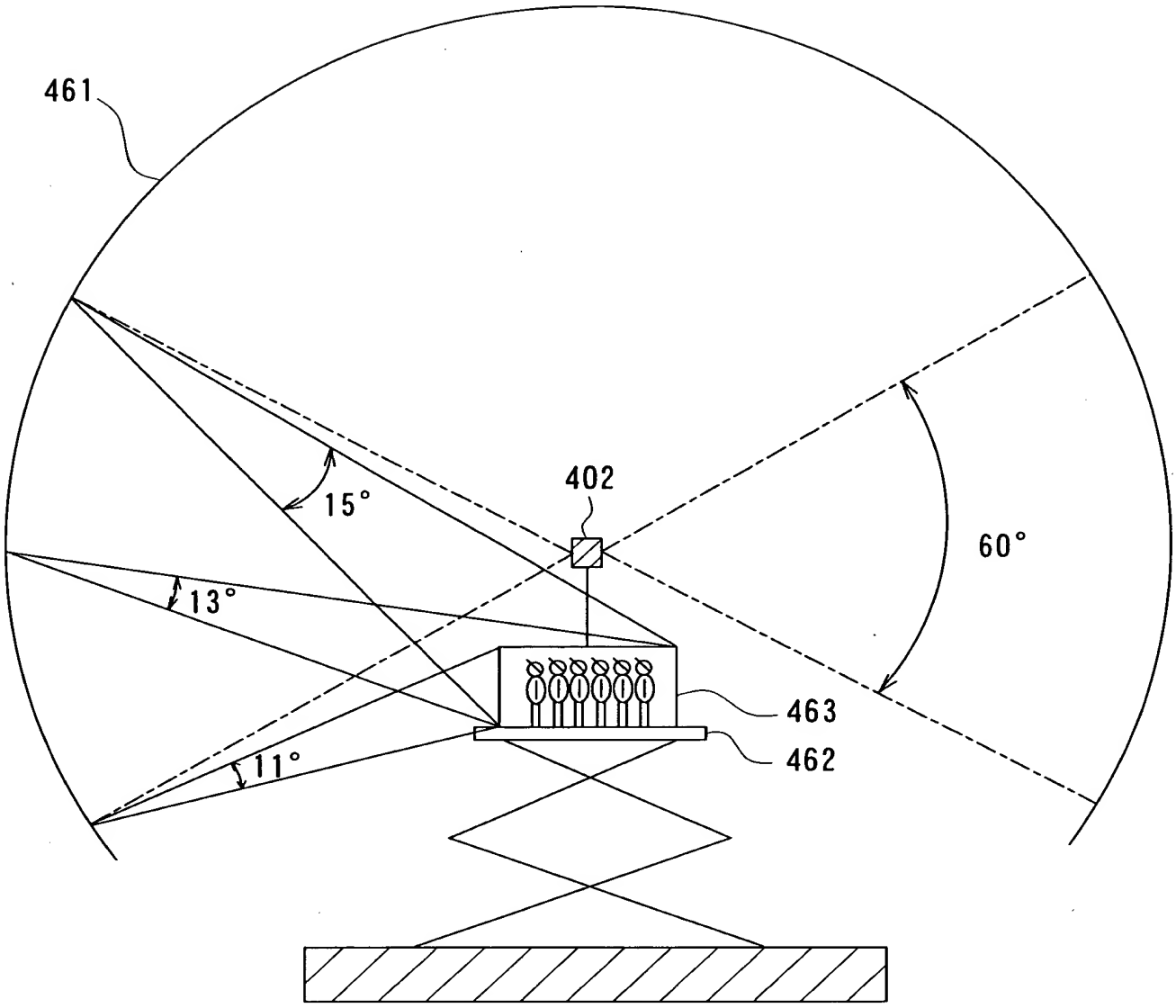



FIG. 94

D05F5/02 B60H1/00

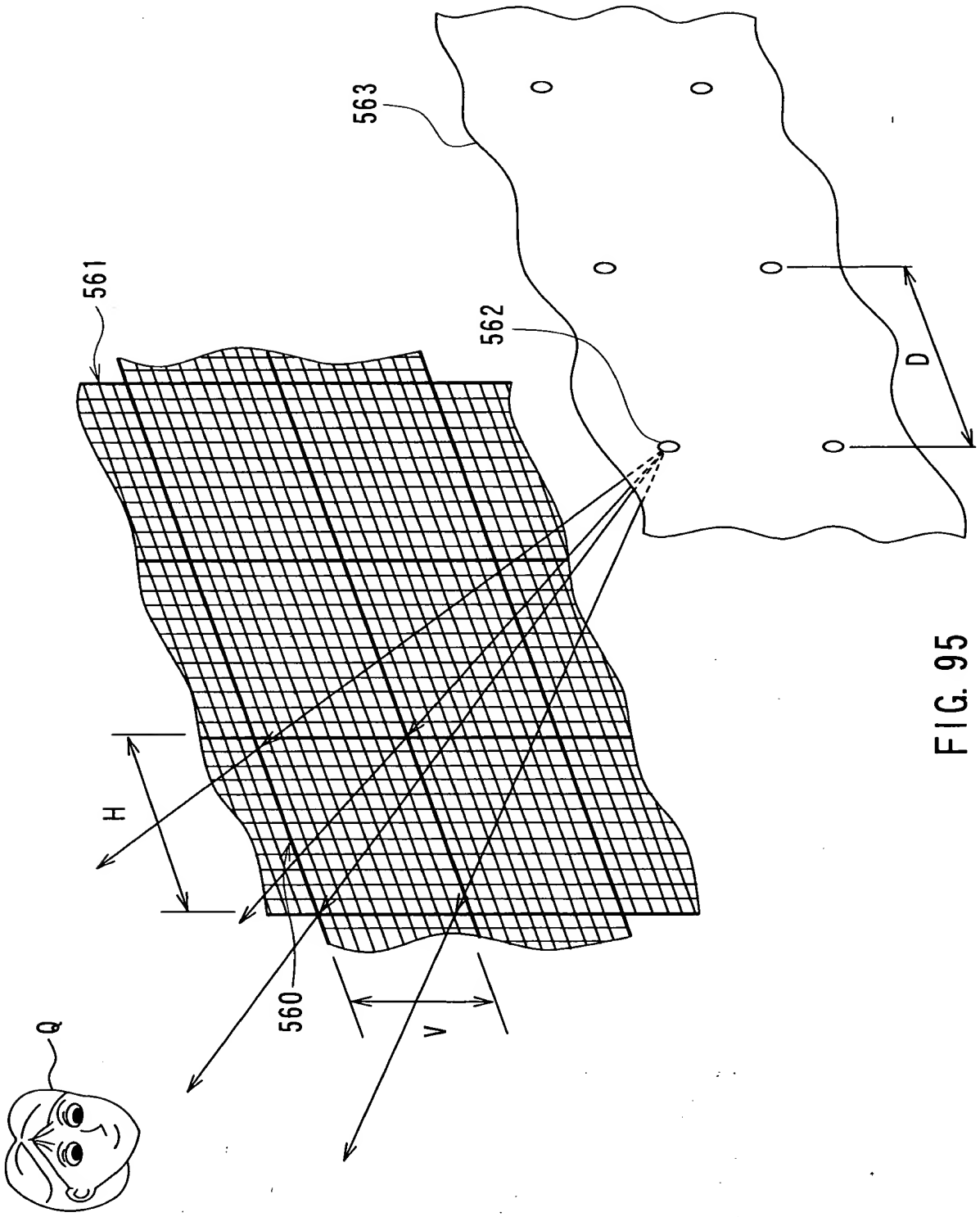



FIG. 95

0074760-8225460

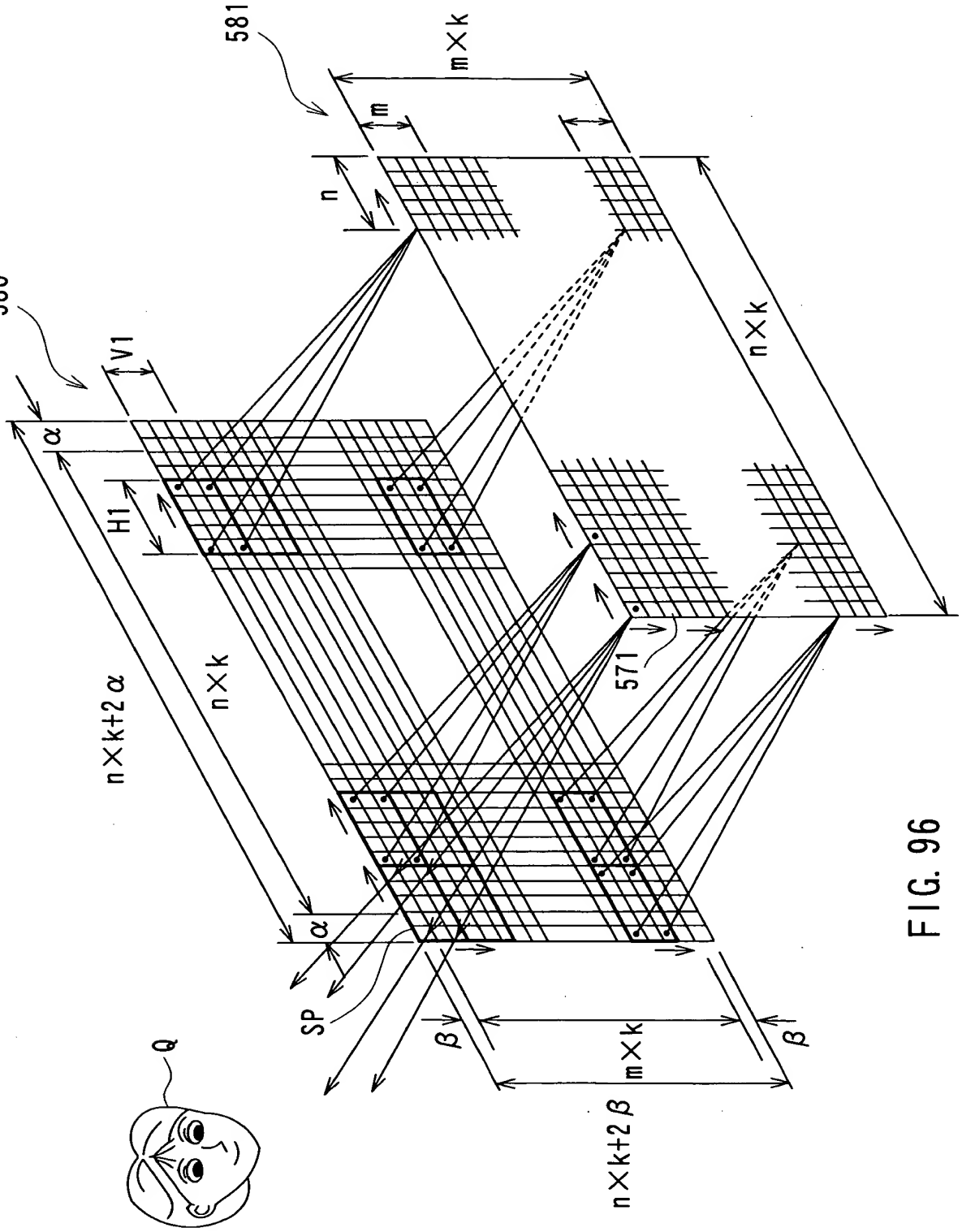



FIG. 96